

## General Description

The Sanrise SRC65R100BS is a high voltage power MOSFET, fabricated using advanced super junction technology. The resulting device has extremely low on resistance, low gate charge and fast switching time, making it especially suitable for applications which require superior power density and outstanding efficiency.

The SRC65R100BS break down voltage is 650V and it has a high rugged avalanche characteristics.

The SRC65R100BS is available in TO-263-2, TO-220F, TO-220C and TO-247 packages.

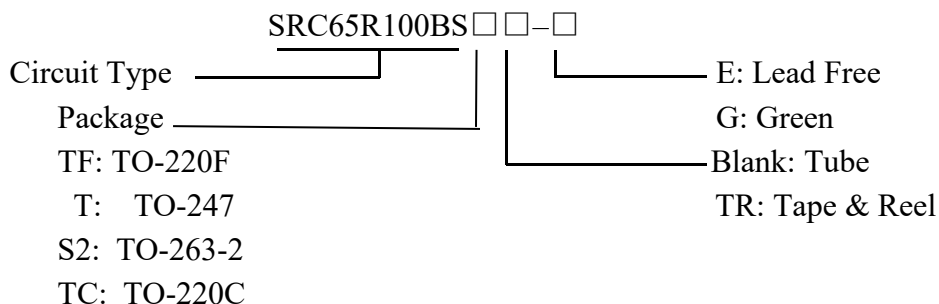
## Features

- Ultra Low  $R_{DS(ON)} = 100m\Omega @ V_{GS} = 10V$ .
- $V_{ds}@T_{jmax}=700v$ .
- Ultra Low Gate Charge,  $Q_g=104nC$  typ.
- Intrinsic Fast-Recovery Body Diode
- Fast switching capability
- Robust design with better EAS performance
- Non-automotive Qualified
- Ultra-fast body diode

## Application

- AC/DC Power Supply
- EV Charger
- PC / Sever / Telecom
- Solar Inverter

## Ordering Information



## Symbol

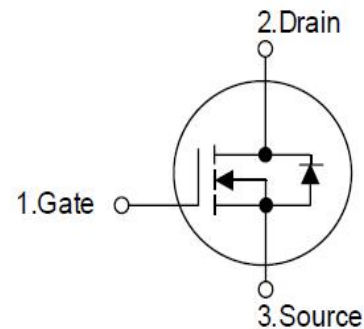


Figure 1 Symbol of SRC65R100BS

## Package Type

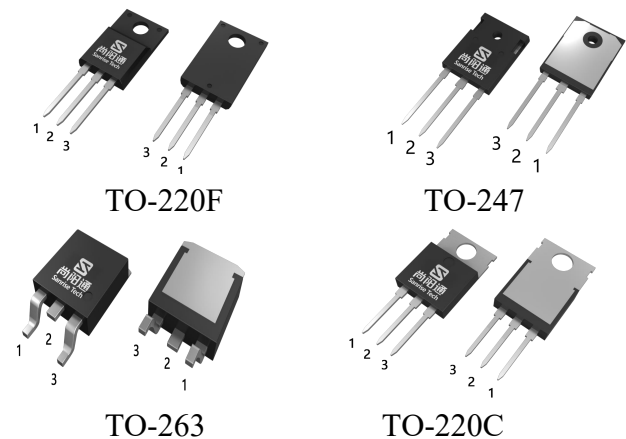


Figure 2 Package Types of SRC65R100BS

Package	Part Number	Marking ID	Packing Type
TO-220F	SRC65R100BSTF-G	SRC65R100BSTFG	Tube
TO-247	SRC65R100BST-G	SRC65R100BSTG	Tube
TO-263-2	SRC65R100BSS2TR-G	SRC65R100BSS2G	Tape & Reel
TO-220C	SRC65R100BSTC-G	SRC65R100BSTCG	Tube

**Absolute Maximum Ratings**

Parameter		Symbol	Rating	Unit
Drain-Source Voltage		$V_{DSS}$	650	V
Gate-Source Voltage		$V_{GSS}$	±30	V
Gate-Source Voltage, AC ( $f > 1$ Hz)		$V_{GSS}$	±30	V
Continuous Drain Current	$T_C = 25^\circ\text{C}$	$I_D$	42	A
	$T_C = 100^\circ\text{C}$		26.4	
	$T_C = 125^\circ\text{C}$		18.7	
Pulsed Drain Current (Note 2)		$I_{DM}$	126	A
Avalanche Energy, Single Pulse (Note 3)		$E_{AS}$	130	mJ
Avalanche Energy, Single Pulse (Note 4)		$E_{AS}$	1020	mJ
Avalanche Energy, Repetitive (Note 2)		$E_{AR}$	0.2	mJ
Avalanche Current, Repetitive (Note 2)		$I_{AR}$	2.2	A
Continuous Diode Forward Current		$I_S$	42	A
Diode Pulse Current		$I_{S,PULSE}$	126	A
MOSFET $dv/dt$ Ruggedness, $V_{DS} \leq 480\text{V}$		$dv/dt$	80	V/ns
Reverse Diode $dv/dt$ , $V_{DS} \leq 480\text{V}$ , $I_{SD} \leq I_D$		$dv/dt$	50	V/ns
Power Dissipation ( $T_C = 25^\circ\text{C}$ , TO-220F)		$P_{tot}$	32	W
Power Dissipation ( $T_C = 25^\circ\text{C}$ , TO-247, TO-220C, TO-263)		$P_{tot}$	255	W
Operating Junction Temperature		$T_J$	150	$^\circ\text{C}$
Storage Temperature		$T_{STG}$	-55 to 150	$^\circ\text{C}$
Lead Temperature (Soldering, 10 sec)		$T_{LEAD}$	260	$^\circ\text{C}$

Note:

- Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.
- Repetitive Rating: Pulse width limited by maximum junction temperature
- $I_{AS} = 2.0\text{A}$ ,  $V_{DD} = 60\text{V}$ ,  $R_G = 25\Omega$ , Starting  $T_J = 25^\circ\text{C}$ . Finish goods test condition.
- $I_{AS} = 5.5\text{A}$ ,  $V_{DD} = 60\text{V}$ ,  $R_G = 25\Omega$ , Starting  $T_J = 25^\circ\text{C}$ . Typical Eas.

**Thermal Resistance**

Parameter		Symbol	Min	Typ	Max	Unit
Thermal resistance, Junction-to-Case	TO-220F	$R_{thJC}$			3.9	$^\circ\text{C}/\text{W}$
	TO-263-2				0.49	
	TO-247				0.49	
	TO-220C				0.49	
Thermal resistance, Junction-to-Ambient	TO-220F	$R_{thJA}$			78	$^\circ\text{C}/\text{W}$
	TO-263-2				60	
	TO-247				60	
	TO-220C				60	

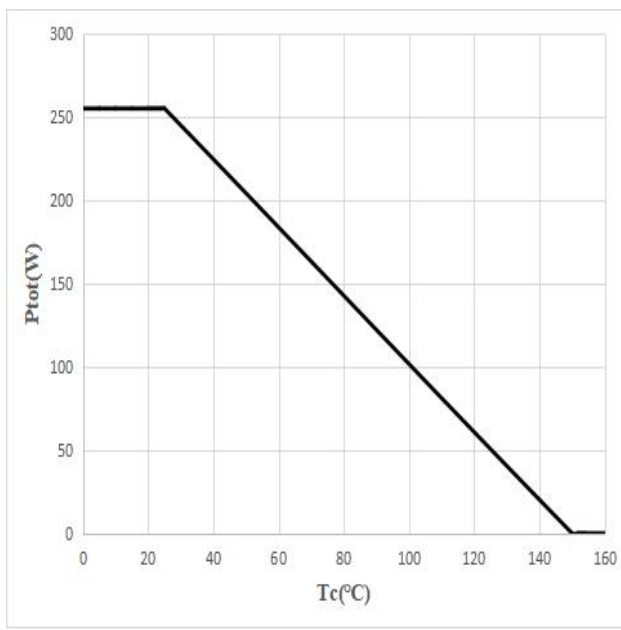
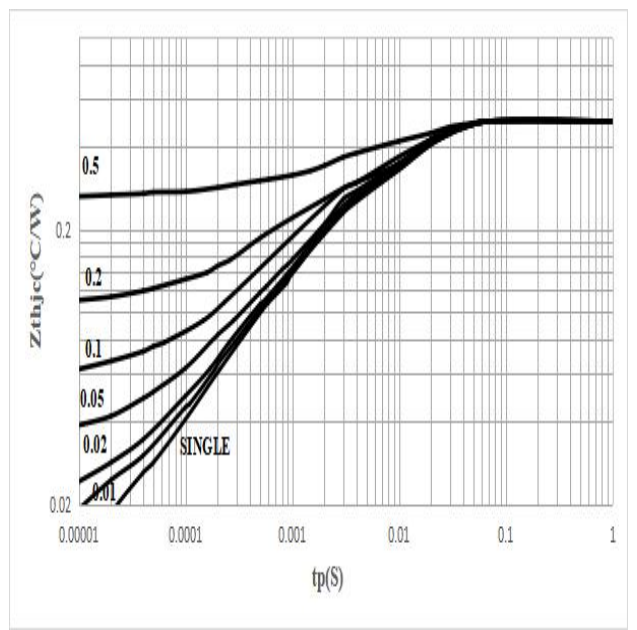
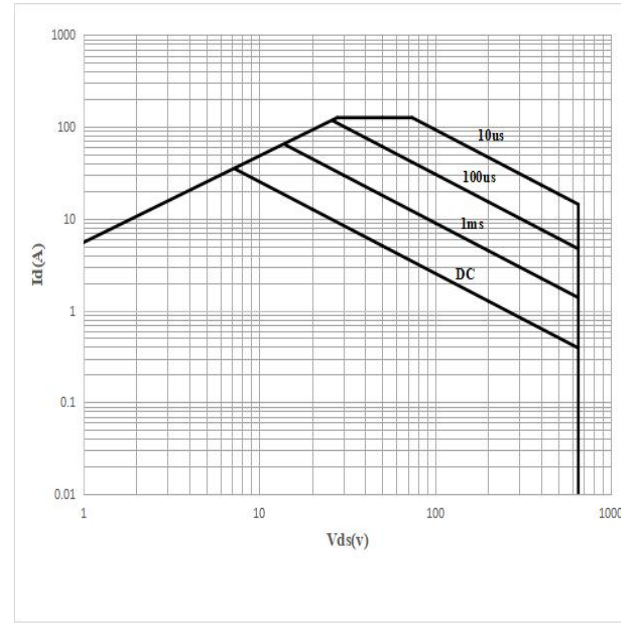
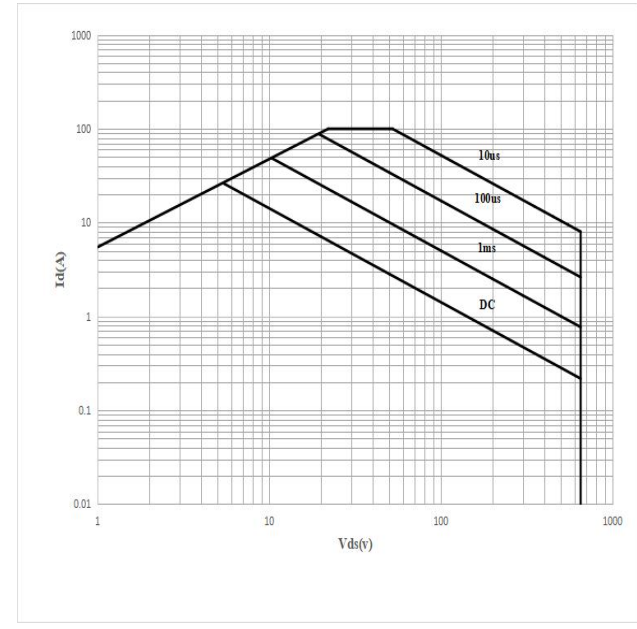
**Electrical Characteristics**
 $T_J = 25^\circ\text{C}$ , unless otherwise specified.

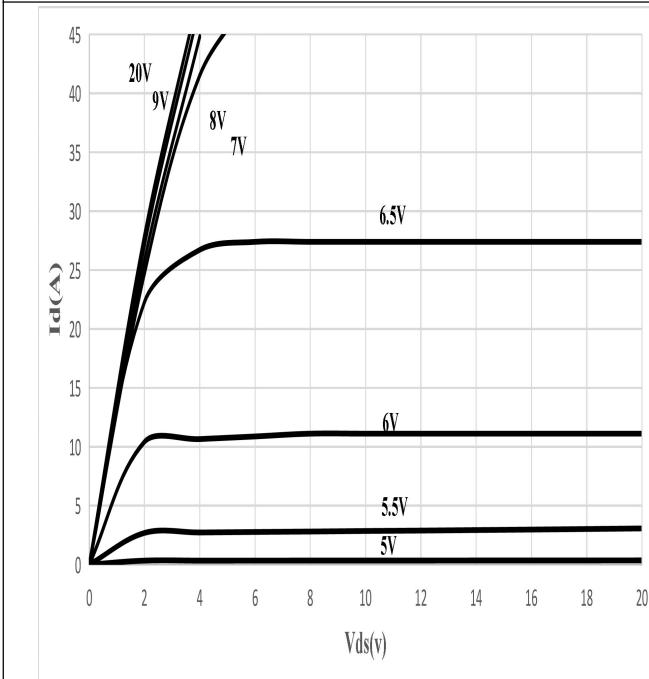
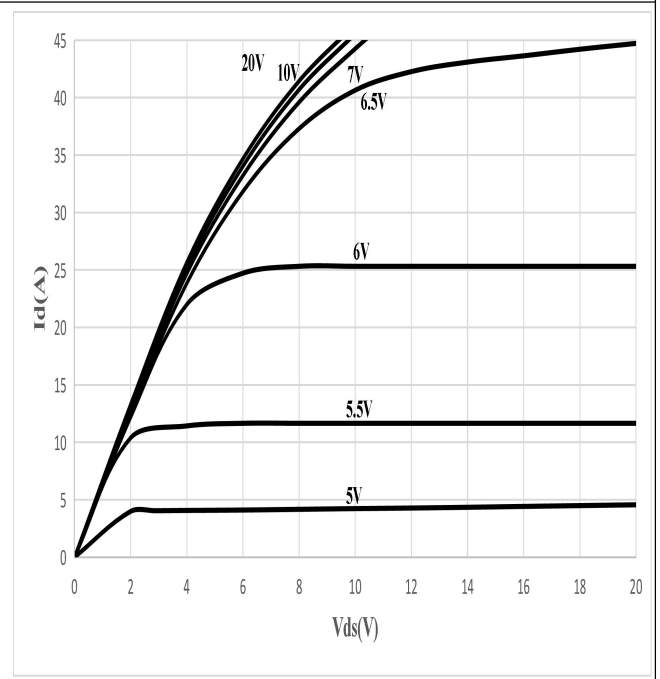
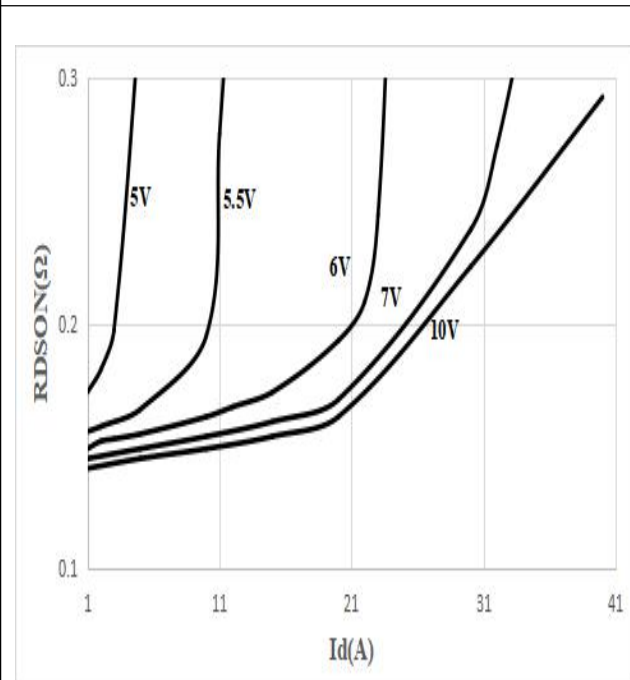
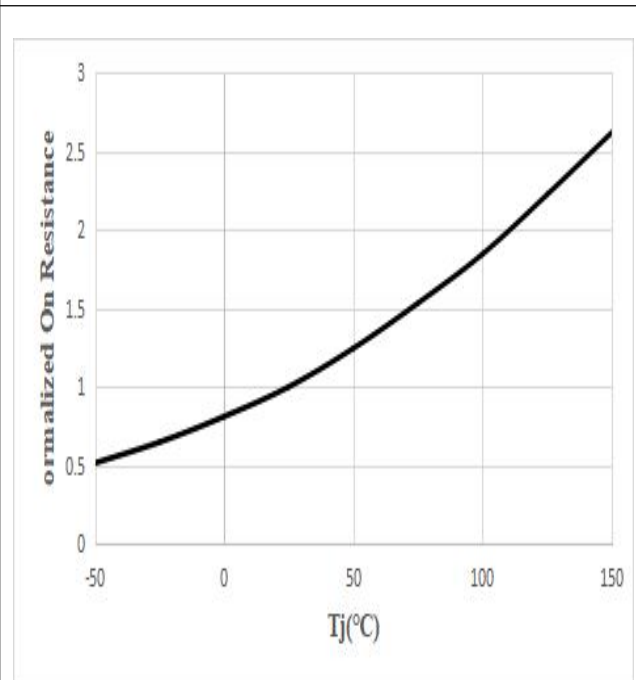
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
<b>Statistic Characteristics</b>						
Drain-Source Breakdown Voltage	$BV_{DSS}$	$V_{GS}=0V, I_D=250\mu A$	650			V
Zero Gate Voltage Drain Current	$I_{DSS}$	$V_{DS}=650V, V_{GS}=0V$			10	$\mu A$
Gate-Body Leakage Current	Forward	$I_{GSSF}, V_{GS}=30V, V_{DS}=0V$			100	nA
	Reverse	$I_{GSSR}, V_{GS}=-30V, V_{DS}=0V$			-100	nA
Gate Threshold Voltage	$V_{GS(TH)}$	$V_{DS}=V_{GS}, I_D=800\mu A$	3.0	4.0	5.0	V
Static Drain-Source On-Resistance	$R_{DS(ON)}$	$V_{GS}=10V, I_D=20A$		70	100	mΩ
Gate Resistance	$R_G$	f=1MHz, Open Drain		0.7		Ω
<b>Dynamic Characteristics</b>						
Input Capacitance	$C_{ISS}$	$V_{DS}=400V, V_{GS}=0V,$ f=100kHz		3373		pF
Output Capacitance	$C_{OSS}$			69.4		
Effective output capacitance, energy related <sup>NOTE5</sup>	$C_{O(er)}$	$V_{GS}=0V,$ $V_{DS}=0\dots 480V$		98.2		pF
Effective output capacitance, time related <sup>NOTE6</sup>	$C_{O(tr)}$			601		
Turn-on Delay Time	$t_{d(on)}$	$V_{DD}=400V, I_D=20A$ $R_G=3\Omega, V_{GS}=10V$		26		ns
Rise Time	$t_r$			28.4		
Turn-off Delay Time	$t_{d(off)}$			56		
Fall Time	$t_f$			7.2		
<b>Gate Charge Characteristics</b>						
Gate to Source Charge	$Q_{gs}$	$V_{DD}=400V, I_D=20A$ $V_{GS}=0$ to 10V		30		nC
Gate to Drain Charge	$Q_{gd}$			50		
Gate Charge Total	$Q_g$			104		
Gate Plateau Voltage	$V_{plateau}$			6.6		V
<b>Reverse Diode Characteristics</b>						
Drain-Source Diode Forward Voltage	$V_{SD}$	$V_{GS}=0V, I_{SD}=20A$		0.9	1.1	V
Reverse Recovery Time	$t_{rr}$	$V_R=400V, I_F=20A$ dI <sub>F</sub> /dt=100A/us		169		ns
Reverse Recovery Charge	$Q_{rr}$			1.33		μC
Peak Reverse Recovery Current	$I_{rrm}$			14.2		A

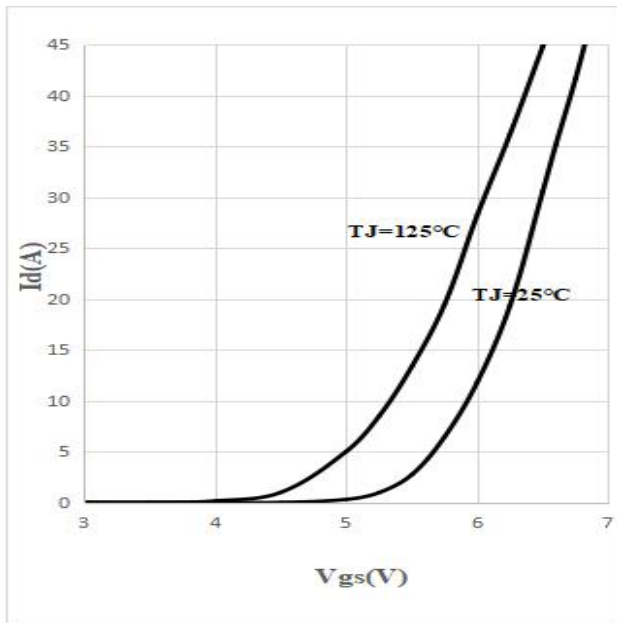
Note:

- $C_{O(er)}$  is a fixed capacitance that gives the same stored energy as  $C_{OSS}$  while  $V_{DS}$  is rising from 0 to 480V
- $C_{O(tr)}$  is a fixed capacitance that gives the same charging time as  $C_{OSS}$  while  $V_{DS}$  is rising from 0 to 480 V

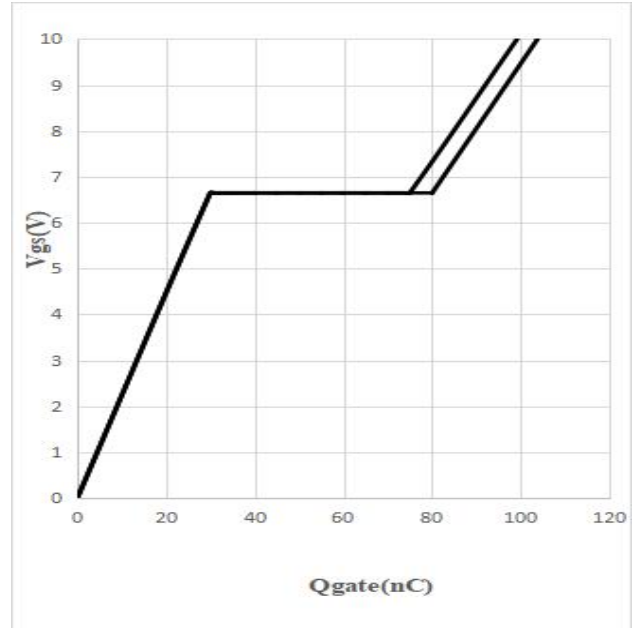
**Typical Performance Characteristics**

<p><b>Figure 3: Power Dissipation</b></p>  <p><math>P_{tot} = f(T_c)</math></p>	<p><b>Figure 4: Max. Transient Thermal Impedance</b></p>  <p><math>Z_{th(jc)} = f(t_p)</math>; parameter: <math>D = t_p/T</math></p>
<p><b>Figure 5: Safe Operating Area</b></p>  <p><math>I_D = f(V_{DS})</math>; <math>T_c = 25^\circ\text{C}</math>; <math>V_{GS} &gt; 7\text{V}</math>; parameter <math>t_p</math></p>	<p><b>Figure 6: Safe Operating Area</b></p>  <p><math>I_D = f(V_{DS})</math>; <math>T_c = 80^\circ\text{C}</math>; <math>V_{GS} &gt; 7\text{V}</math>; parameter <math>t_p</math></p>

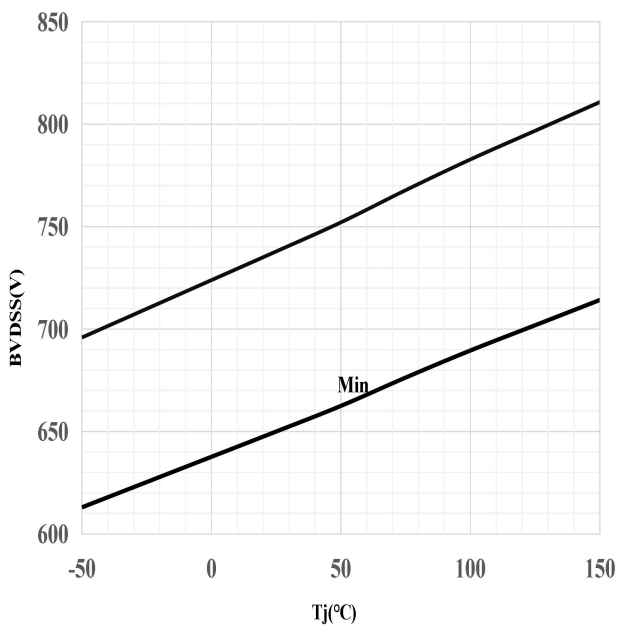
**Figure 7: Typ. Output Characteristics**

 $I_D = f(V_{DS}); T_j = 25^\circ\text{C}; \text{parameter: } V_{GS}$ 
**Figure 8: Typ. Output Characteristics**

 $I_D = f(V_{DS}); T_j = 125^\circ\text{C}; \text{parameter: } V_{GS}$ 
**Figure 9: Typ. Drain-Source On-State Resistance**

 $R_{DS(ON)} = f(I_D); T_j = 125^\circ\text{C}; \text{parameter: } V_{GS}$ 
**Figure 10: Typ. Drain-Source On-State Resistance**

 $R_{DS(ON)} = f(T_j); I_D = 20\text{A}; V_{GS} = 10\text{V}$

**Figure 11: Typ. Transfer Characteristics**


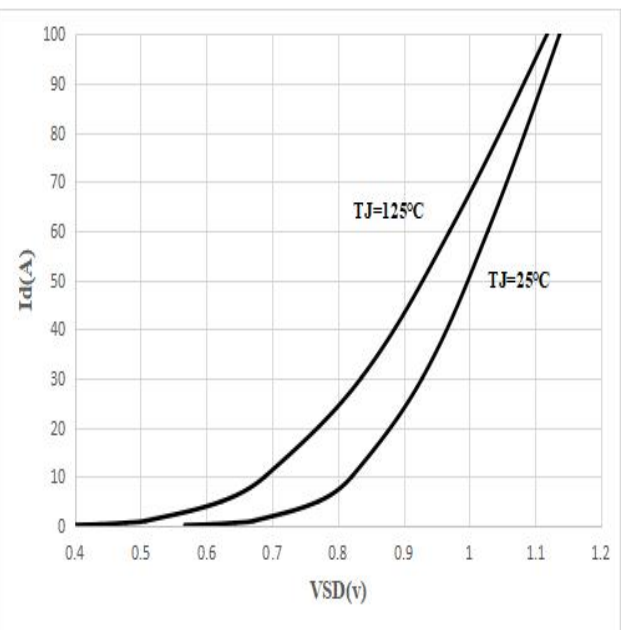
$$I_D = f(V_{GS}); V_{DS} = 20V$$

**Figure 12: Typ. Gate Charge**


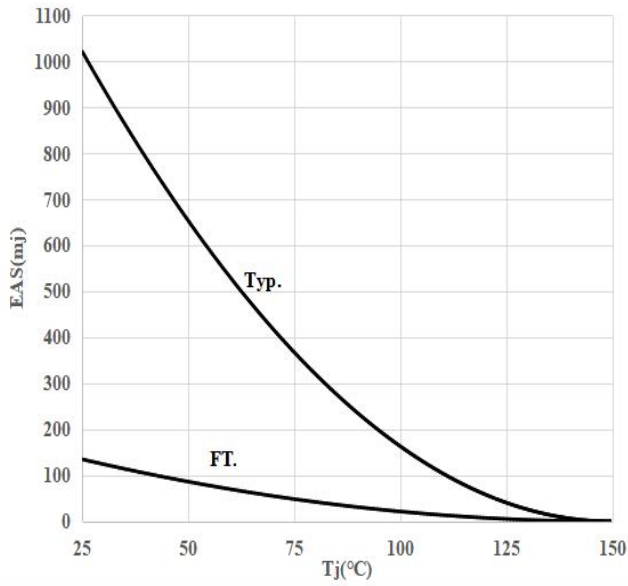
$$V_{GS} = f(Q_{gate}), I_D = 20A \text{ pulsed}$$

**Figure 13: Drain-Source Breakdown Voltage**


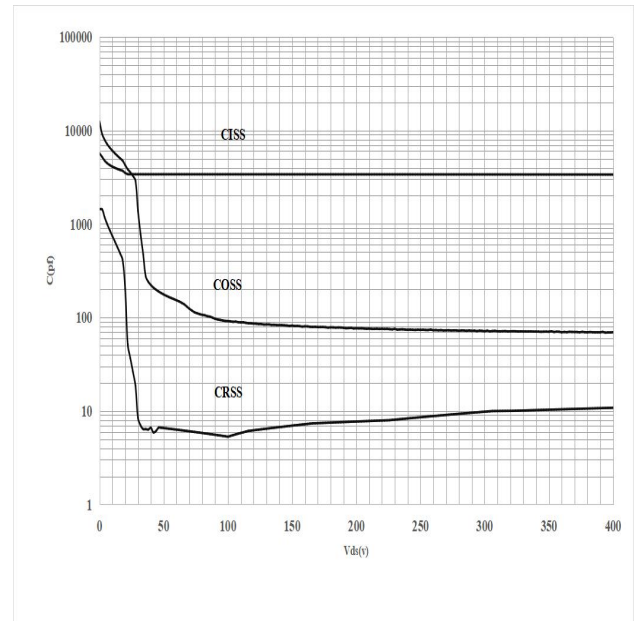
$$V_{BR(DSS)} = f(T_j); I_D = 10mA$$

**Figure 14: Forward Characteristics of Reverse Diode**


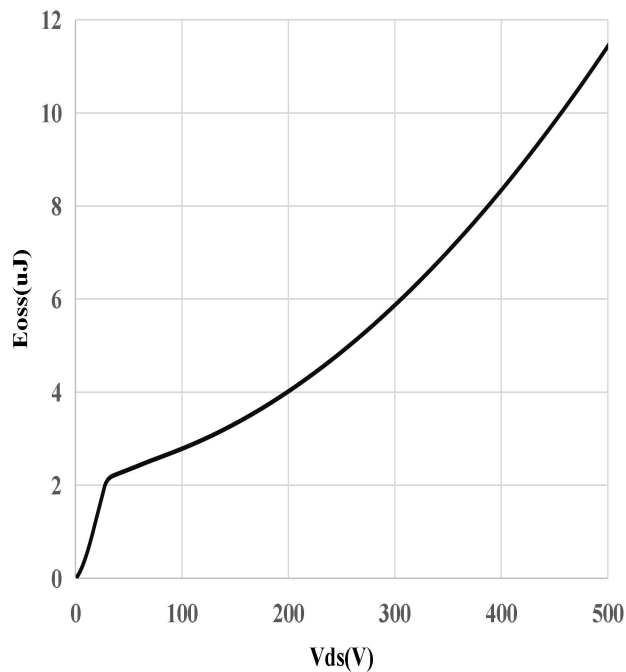
$$I_F = f(V_{SD}); \text{parameter: } T_j$$

**Figure 15: Avalanche Energy**


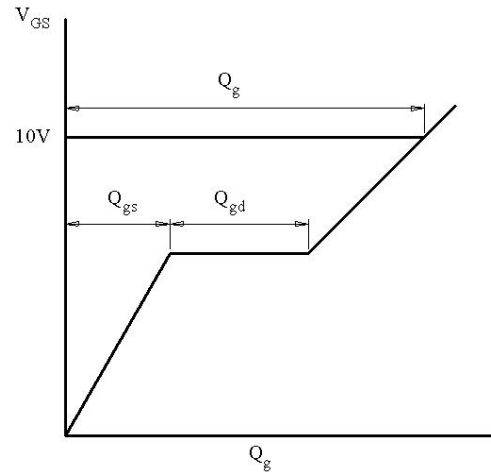
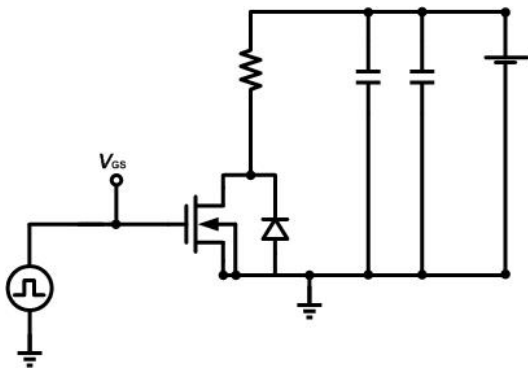
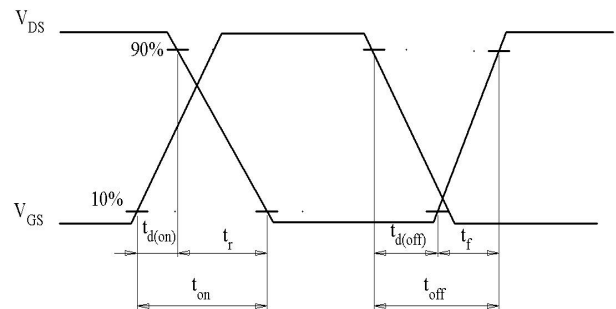
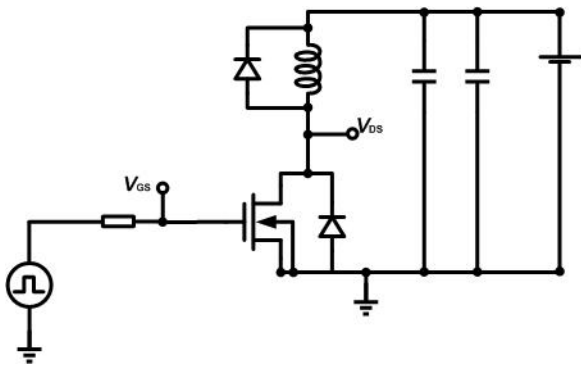
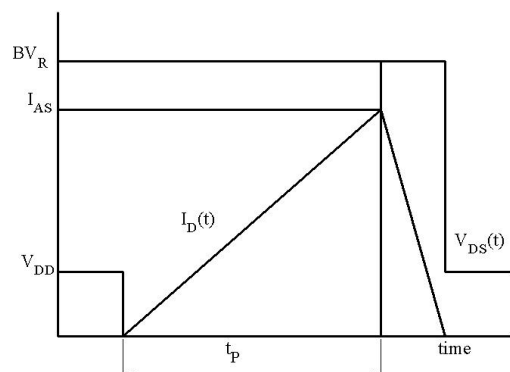
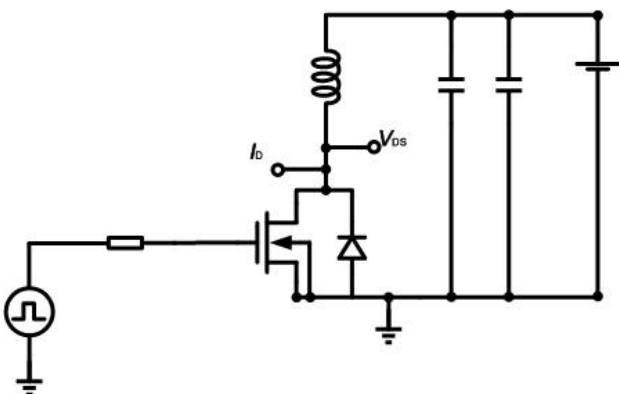
$$E_{AS}=f(T_j); V_{DD}=60V$$

**Figure 16: Typ. Capacitances**


$$C=f(V_{DS}); V_{GS}=0; f=100kHz$$

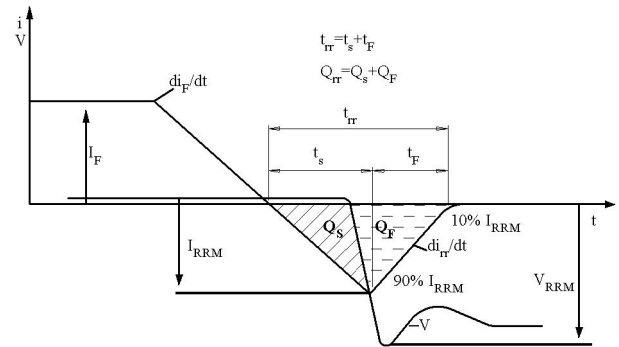
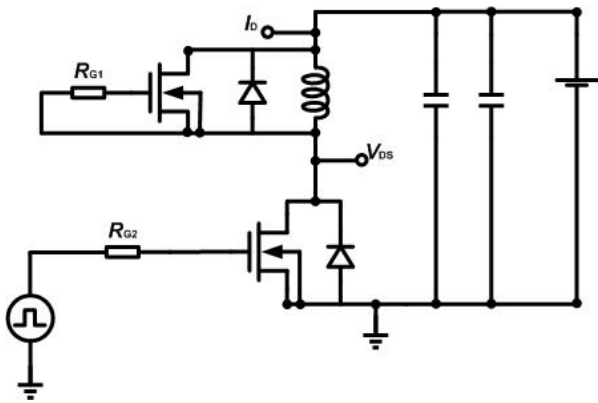
**Figure 17: Coss Stored Energy**


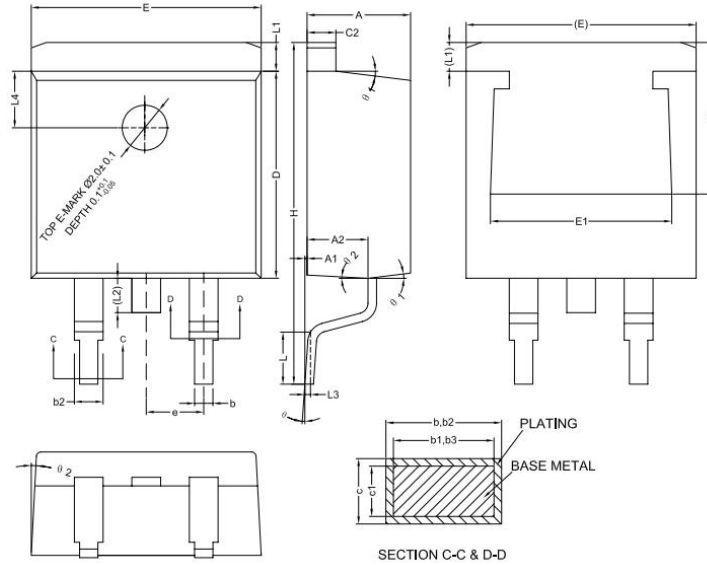
$$E_{OSS}=f(V_{DS})$$

**Test Circuits**
**1. Gate Charge Test Circuit & Waveform**

**2. Switch Time Test Circuit**

**3. Unclaimed Inductive Switching Test Circuit & Waveforms**




4. Test Circuit and Waveform for Diode Characteristics

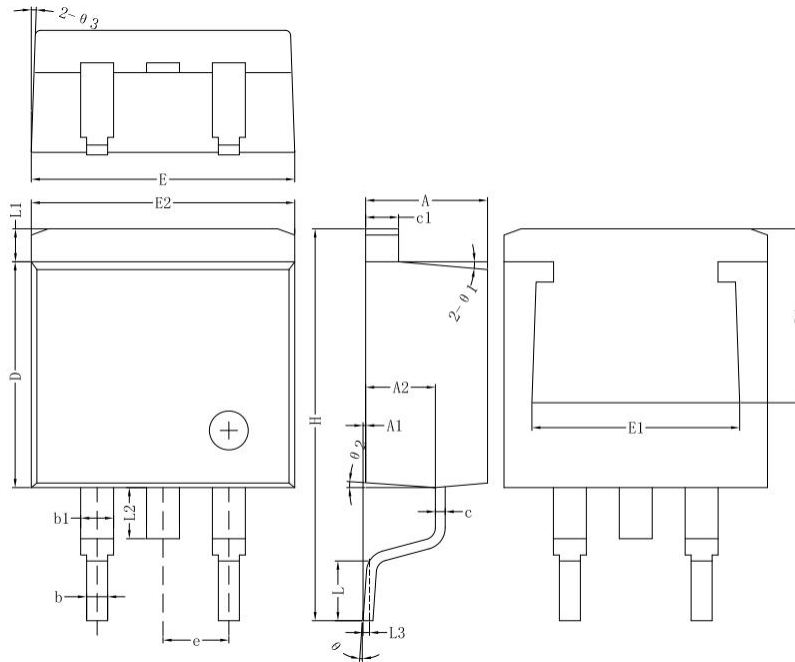


**Mechanical Dimensions**
**TO-263-2 (Package 1)**
**Unit: mm**


Symbol	Dimensions(mm)		
	Min.	Typ.	Max.
A	4.40	4.57	4.70
A1	0.00	0.10	0.25
A2	2.59	2.69	2.79
b	0.77	-	0.90
b1	0.76	0.81	0.86
b2	1.23	-	1.36
b3	1.22	1.27	1.32
c	0.34	-	0.47
c1	0.33	0.38	0.43
c2	1.22	-	1.32
D	9.05	9.15	9.25
D1	6.60	-	-
E	10.06	10.16	10.26
E1	7.80	-	8.20
e	2.54(BSC)		
H	14.70	15.10	15.50
L	2.00	2.30	2.60
L1	1.17	1.27	1.40
L2	-	-	1.75
L3	0.25BSC		
L4	2.00REF		
θ	0°	-	8°
θ1	5°	7°	9°
θ2	1°	3°	5°

**Mechanical Dimensions**
**TO-263-2 (Package 2)**

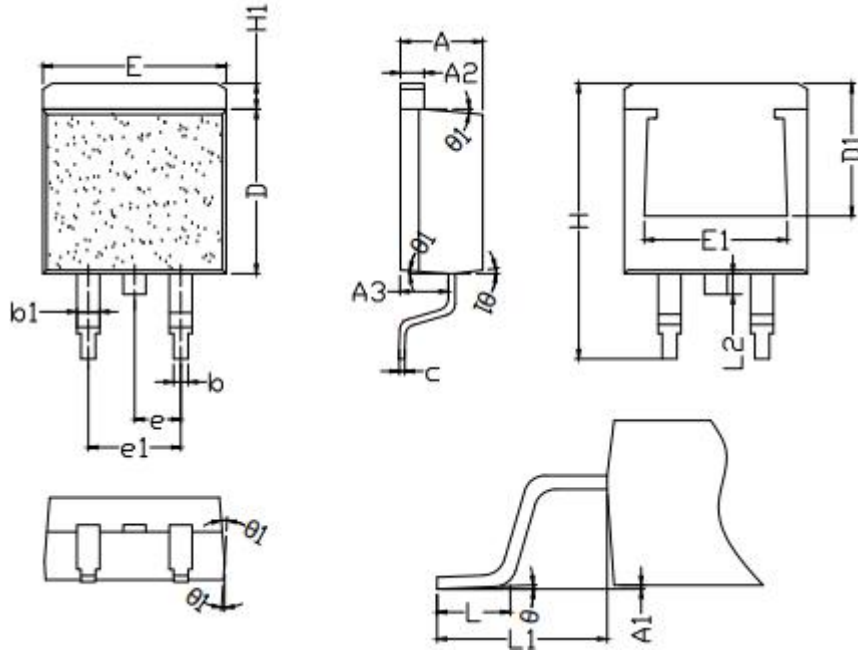
Unit: mm



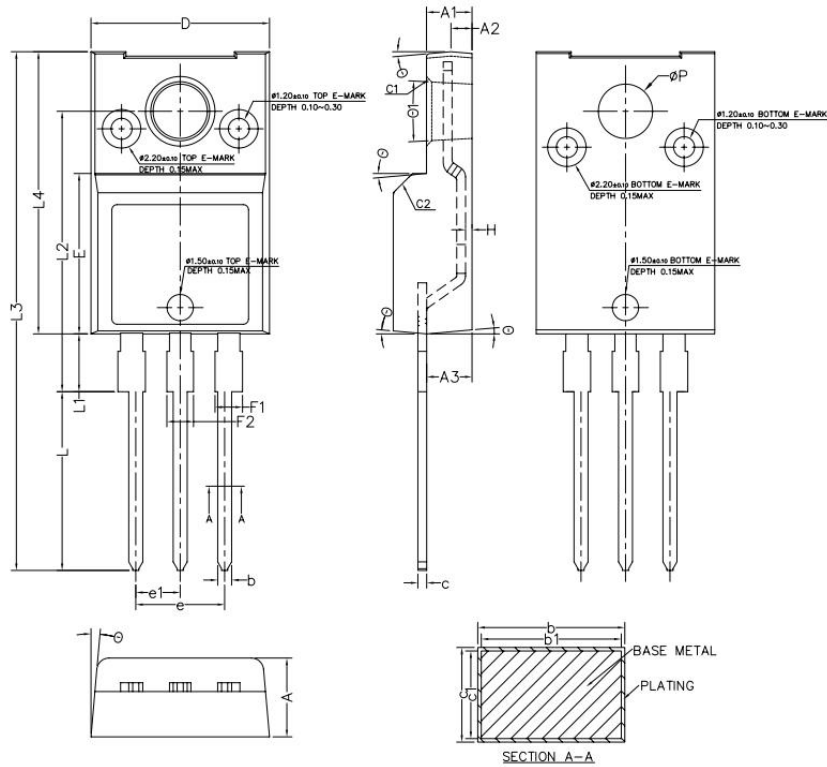
Symbol	Dimensions(mm)		
	Min.	Typ.	Max.
A	4.55	4.70	4.85
A1	0.00	0.10	0.25
A2	2.59	2.69	2.89
b	0.71	0.81	0.96
b1	-	1.27	-
c	0.36	0.38	0.61
c1	1.17	1.27	1.37
D	8.55	8.70	8.85
D1	-	7.2	-
E	10.01	10.16	10.31
E1	-	7.80	-
E2	9.98	10.08	10.18
e	-	2.54	-
H	14.70	15.10	15.50
L	2.00	2.30	2.70
L1	1.17	1.27	1.40
L2	-	-	2.20
L3	-	0.25BSC	-
θ	0°	-	8°
θ1		5°	
θ2		4°	
θ3		4°	

**Mechanical Dimensions**
**TO-263-2 (Package 3)**

Unit: mm



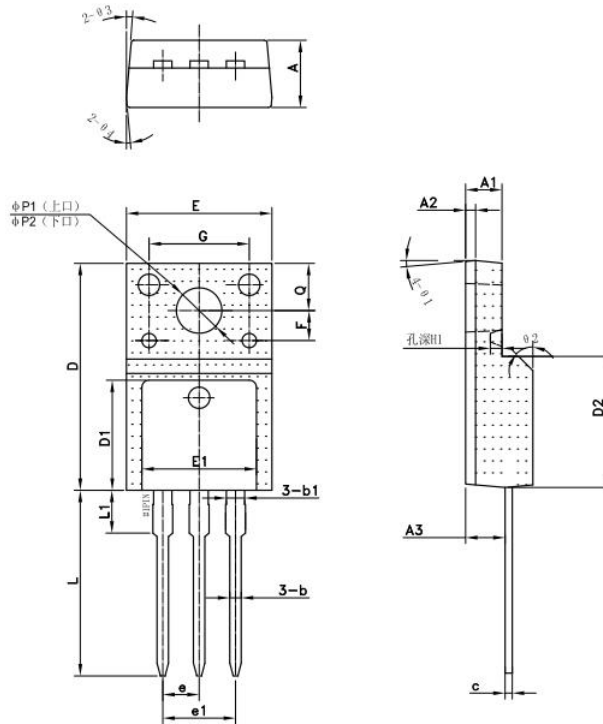
Symbol	Dimensions(mm)		
	Min.	Typ.	Max.
A	4.42	4.52	4.62
A1	0.00	0.10	0.25
A2	1.24	1.27	1.32
A3	2.50	2.60	2.70
b	0.77	0.81	0.84
b1	1.23	1.28	1.41
c	0.33	0.38	0.43
D	8.80	8.95	9.10
D1	7.2REF		
E	9.92	10.07	10.22
E1	7.85REF		
e	2.50	2.54	2.58
e1	5.08REF		
H	14.80	15.10	15.30
H1	1.12	1.28	1.42
L	2.10	2.23	2.36
L1	4.55	4.75	4.95
L2	1.10	1.30	1.50
θ	0°	2°	5°
θ1	3°	-	5°

**Mechanical Dimensions**
**TO-220F (Package 1)**
**Unit: mm**


Symbol	Dimensions(mm)		
	Min.	Typ.	Max.
A	4.40	4.50	4.60
A1	2.50	2.60	2.70
A2	1.10	1.20	1.30
A3	2.49	2.59	2.69
b	0.76	-	0.89
b1	0.75	0.80	0.85
c	0.46	-	0.59
c1	0.45	0.50	0.55
C1	0.20	0.30	0.40
C2	1.00	1.10	1.20
D	10.10	10.20	10.30
E	9.05	9.15	9.25
e	4.98	5.08	5.18
e1	2.44	2.54	2.64
F1	1.22	-	1.60
F2	1.17	-	1.55
H	0.32	0.37	0.42
L	10.00	10.20	10.40
L1	3.15	3.30	3.45
L2	15.85	16.00	16.15
L3	29.30	29.60	29.90
L4	16.00	16.10	16.20
P	3.00	3.10	3.20
θ	3°	5°	7°
θ1	4°	6°	8°

**Mechanical Dimensions**
**TO-220F (Package 2)**

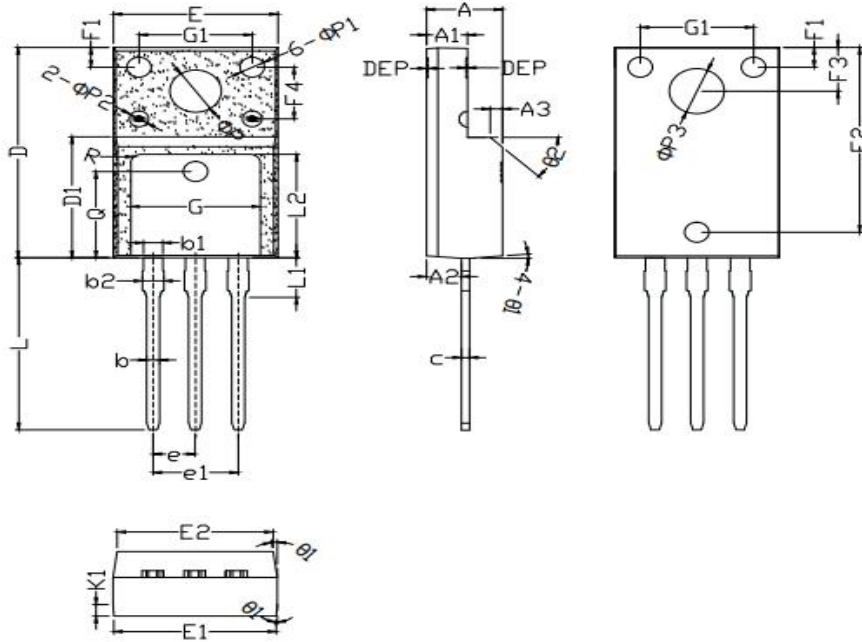
Unit: mm



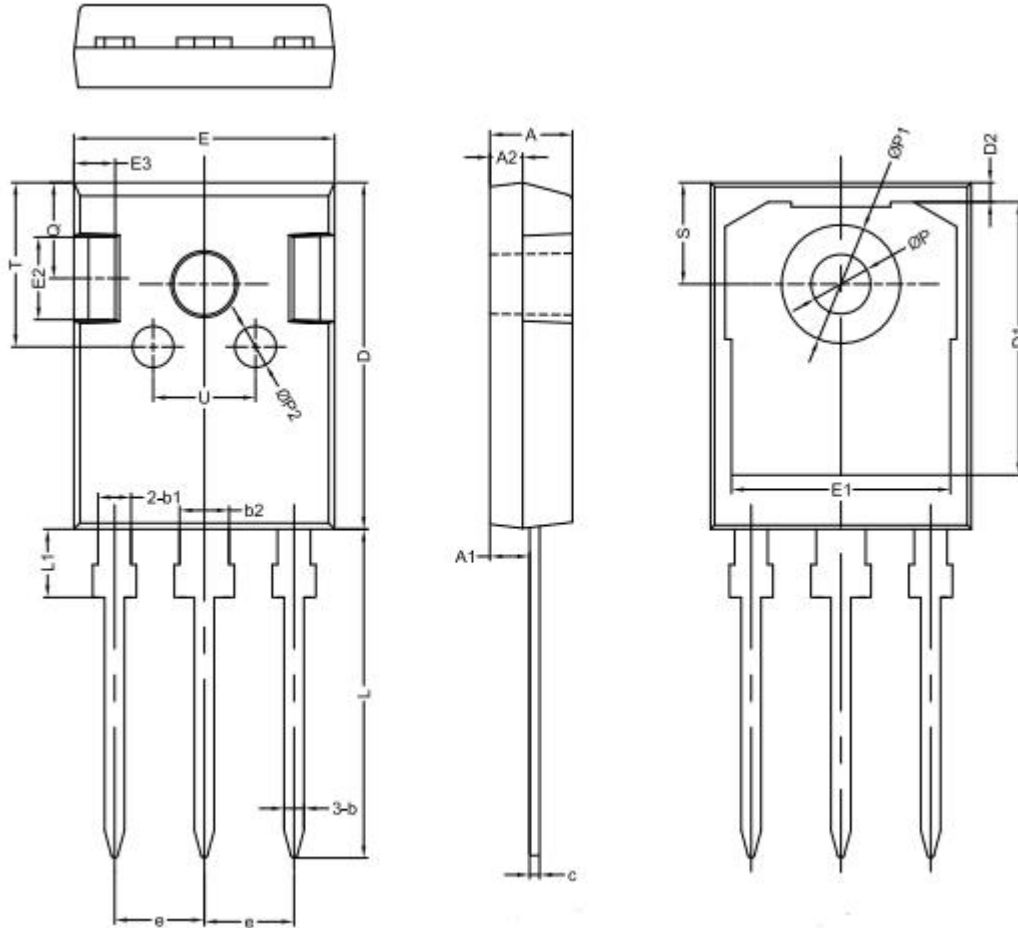
Symbol	Dimensions(mm)		
	Min.	Typ.	Max.
A	4.50	4.70	4.90
A1	2.34	2.54	2.70
A2	-	0.70	-
A3	2.56	2.76	2.96
b	0.70	0.80	0.95
b1	-	1.28	-
c	0.45	0.50	0.65
D	15.67	15.87	16.07
D1	-	7.70	-
D2	-	9.12	-
E	9.96	10.16	10.36
E1	-	8.00	-
e	2.54		
e1	5.08		
F	2.1		
G	7		
H1	-	0.81	-
L	12.48	12.98	13.20
L1	-	2.93	-
ΦP1 (上口)	2.98	3.18	3.38
ΦP2 (下口)	3.20	3.40	3.60
Q	3.10	3.30	3.50
θ1	5°		
θ2	45°		
θ2	5°		
θ3	5°		

**Mechanical Dimensions**
**TO-220F (Package 3)**

Unit: mm

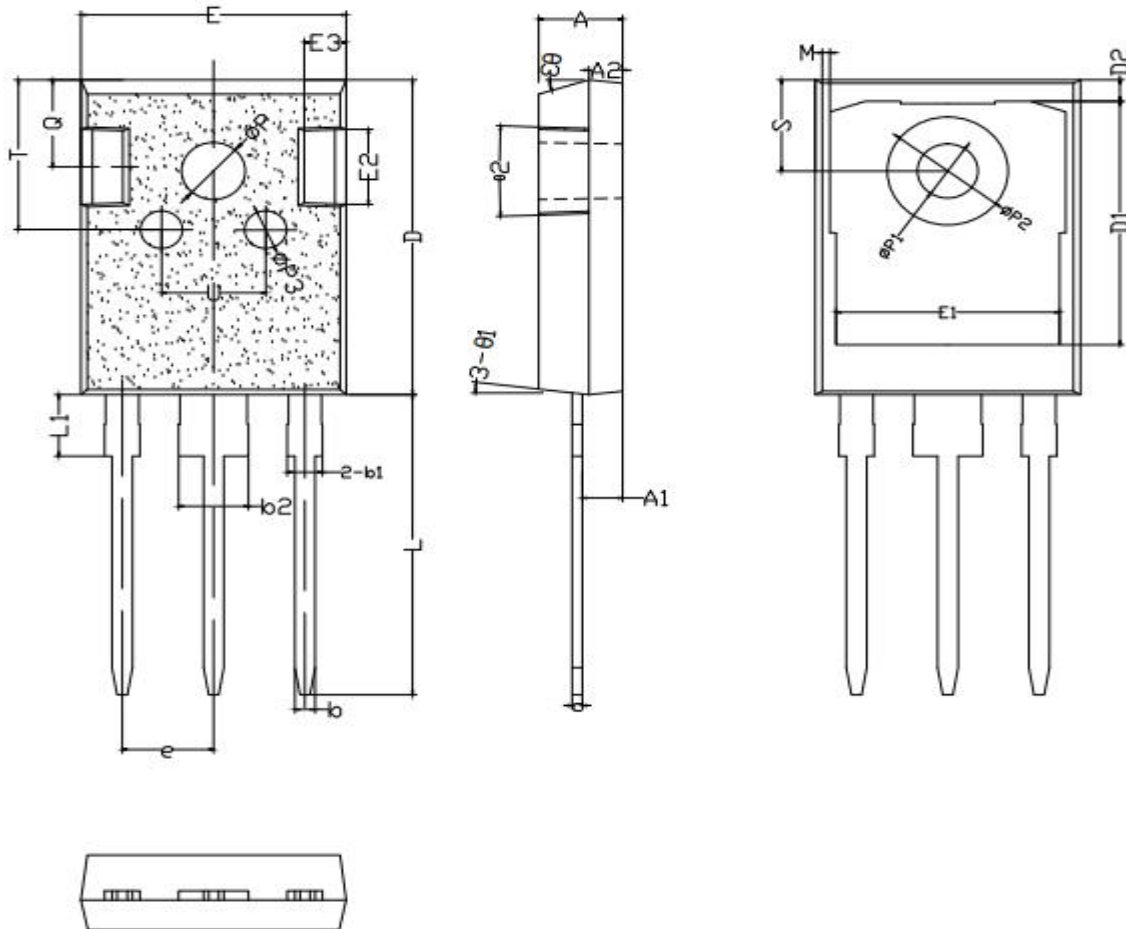


Symbol	Dimensions(mm)		
	Min.	Typ.	Max.
A	4.50	4.70	4.90
A1	2.34	2.54	2.74
A2	2.60	2.80	2.95
A3	1.0REF		
b	0.75	0.80	0.85
b1	1.18	1.20	1.24
b2	1.18	1.24	1.30
c	0.45	0.50	0.55
D	15.67	15.87	16.07
D1	9.04	9.12	9.20
E	10.00	10.16	10.30
E1	9.94	10.06	10.30
E2	9.40	9.50	9.60
e	2.50	2.54	2.58
e1	5.08REF		
L	12.78	12.98	13.18
L1	2.70	2.92	3.20
L2	7.70	7.80	7.90
Q	6.50REF		
ΦP	3.08	3.18	3.28
ΦP1	1.45	1.55	1.65
ΦP2	0.95	1.15	1.35
ΦP3	3.30	3.40	3.50
θ1	3°	5°	7°
θ2	42°	45°	48°
F1	1.40	1.50	1.60
F2	13.80	13.90	14.00
F3	3.20	3.30	3.40
F4	3.70	3.90	4.10
G	7.80	8.00	8.20
G1	6.90	7.00	7.10
K1	0.65	0.70	0.75

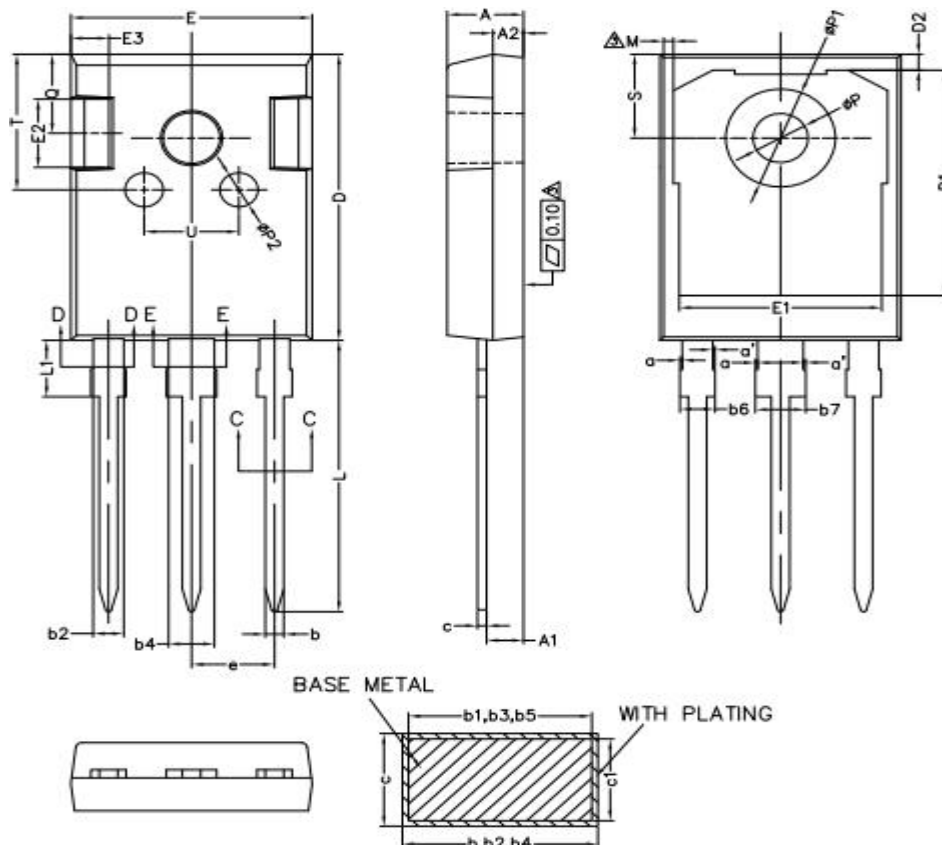
**Mechanical Dimensions**
**TO-247(Package 1)**
**Unit: mm**


Symbol	Dimensions(mm)			Symbol	Dimensions(mm)		
	Min.	Typ.	Max.		Min.	Typ.	Max.
A	4.80	5.00	5.20	E1	-	13.30	-
A1	2.21	2.41	2.61	E2	-	5.00	-
A2	1.90	2.00	2.10	E3	-	2.50	-
b	1.10	1.20	1.35	L	19.42	19.92	20.42
b1	-	2.00	-	L1	-	4.13	-
b2	-	3.00	-	P	3.50	3.60	3.70
c	0.55	0.60	0.75	P1	-	7.19	-
D	20.80	21.00	21.20	P2	-	2.50	-
D1	-	16.55	-	Q	-	5.80	-
D2	-	1.20	-	S	6.05	6.15	6.25
E	15.60	15.80	16.0	T	-	10.00	-
U	-	6.20	-				

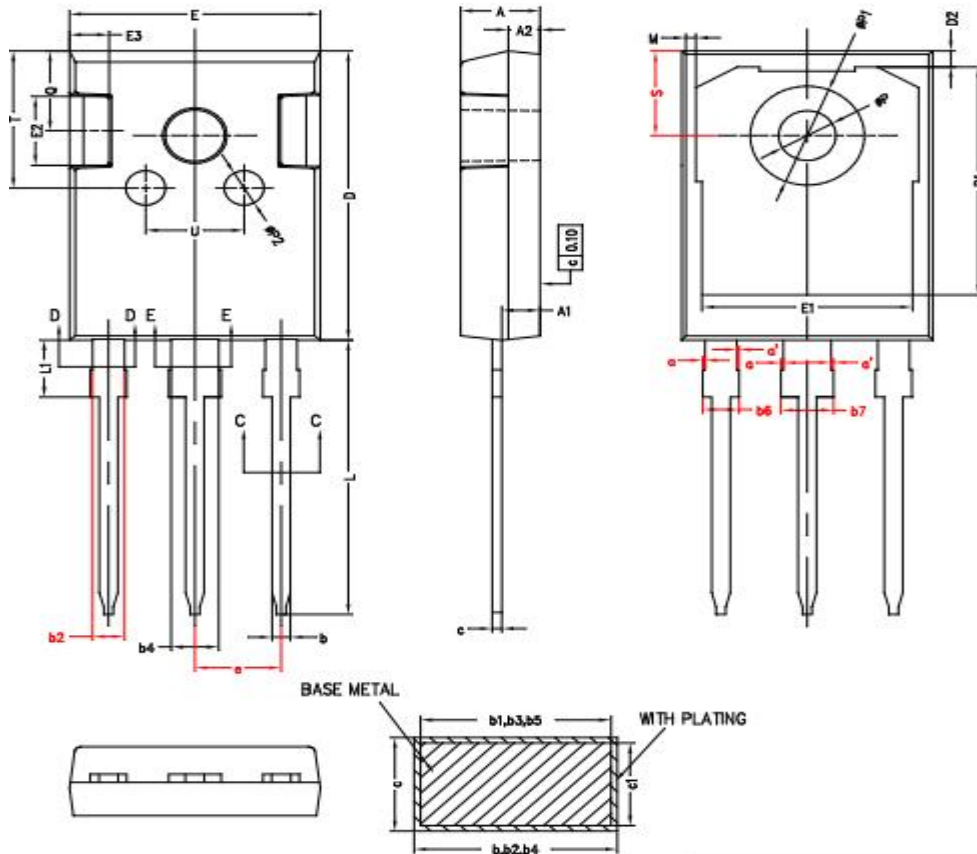


**Mechanical Dimensions**
**TO-247(Package 2)**
**Unit: mm**


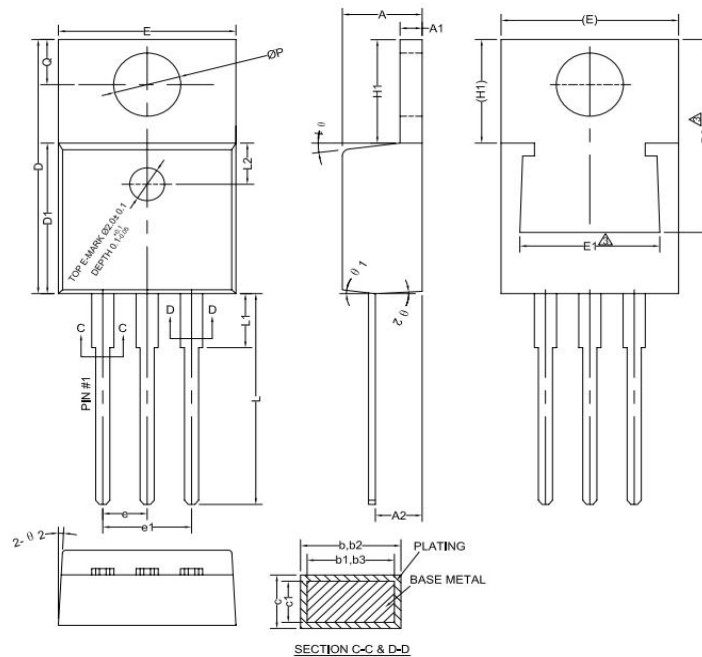
Symbol	Dimensions(mm)			Symbol	Dimensions(mm)		
	Min.	Typ.	Max.		Min.	Typ.	Max.
A	4.90	5.00	5.10	E1	13.10	13.25	13.40
A1	2.31	2.41	2.51	E2	4.85	4.95	5.10
A2	1.90	2.00	2.10	E3	2.40	2.50	2.60
b	1.15	1.20	1.25	L	19.80	19.98	20.15
b1	1.95	2.10	2.25	L1	-	-	4.30
b2	2.95	3.10	3.25	ΦP	3.60	3.70	3.80
c	0.55	0.60	0.65	ΦP1	3.40	3.50	3.60
D	20.90	21.00	21.10	ΦP2	6.90	7.10	7.30
D1	16.35	16.55	16.75	Q	5.60	5.80	6.00
D2	1.05	1.20	1.35	S	6.05	6.15	6.25
E	15.70	15.80	15.90	T	9.80	10.00	10.20
U	6.00	6.20	6.40	e	5.40	5.44	5.48
Θ1	5°	7°	9°	ΦP3	2.40	2.50	2.60
Θ2	1°	3°	5°	Θ3	13°	15°	17°

**Mechanical Dimensions**
**TO-247(Package 3)**
**Unit: mm**


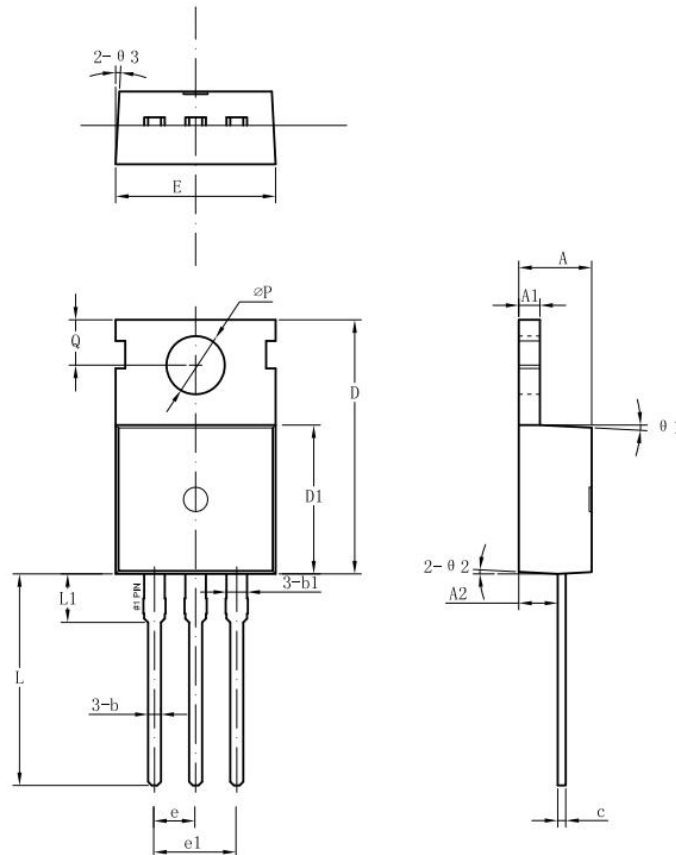
Symbol	Dimensions(mm)			Symbol	Dimensions(mm)		
	Min.	Typ.	Max.		Min.	Typ.	Max.
A	4.90	5.00	5.10	c1	0.58	0.60	0.62
A1	2.31	2.41	2.51	D	20.90	21.00	21.10
A2	1.90	2.00	2.10	D1	16.25	16.55	16.85
b	1.16	-	1.26	D2	1.05	1.20	1.35
b1	1.15	1.20	1.22	E	15.70	15.80	15.90
b2	1.96	-	2.06	E1	13.10	13.30	13.50
b3	1.95	2.00	2.02	E2	4.90	5.00	5.10
b4	2.96	-	3.06	E3	2.40	2.50	2.60
b5	2.95	3.00	3.02	e	5.34	5.44	5.54
b6	-	-	2.25	L	19.80	19.92	20.10
b7	-	-	3.25	L1	3.95	4.13	4.30
c	0.59	-	0.66	M	0.35	-	0.95
P	3.50	3.60	3.70	P1	7.00	-	7.40
P2	2.40	2.50	2.60	Q	5.60	-	6.00
S	6.05	6.15	6.25	T	9.80	-	10.20
U	6.00	-	6.40	a	0	-	0.15
a'	0	-	0.15				

**Mechanical Dimensions**
**TO-247(Package 4)**
**Unit: mm**


Symbol	Dimensions(mm)			Symbol	Dimensions(mm)		
	Min.	Typ.	Max.		Min.	Typ.	Max.
A	4.90	5.00	5.10	E2	4.90	5.00	5.10
A1	2.31	2.41	2.51	E3	2.40	2.50	2.60
A2	1.90	2.00	2.10	e	5.34	5.44	5.54
b	1.12	-	1.22	L	19.80	19.92	20.10
b1	1.11	1.16	1.18	L1	3.95	4.13	4.30
b2	1.96	-	2.06	P	3.50	3.60	3.70
c	0.59	-	0.66	P1	7.00	-	7.40
D	20.90	21.00	21.10	P2	2.40	2.50	2.60
D1	16.25	16.55	16.85	Q	5.60	-	6.00
D2	1.05	1.20	1.35	S	6.05	6.15	6.25
E	15.70	15.80	15.90	T	9.80	-	10.20
E1	13.10	13.30	13.50	U	6.00	-	6.40
b3	1.95	2.00	2.02	b6	-	-	2.25
b4	2.96	-	3.06	b7	-	-	3.25
b5	2.95	3.00	3.02	c1	0.58	0.60	0.62
M	0.35	-	0.95	a	0	-	0.15
a'	0	-	0.15				

**Mechanical Dimensions**
**TO-220C (Package 1)**
**Unit: mm**


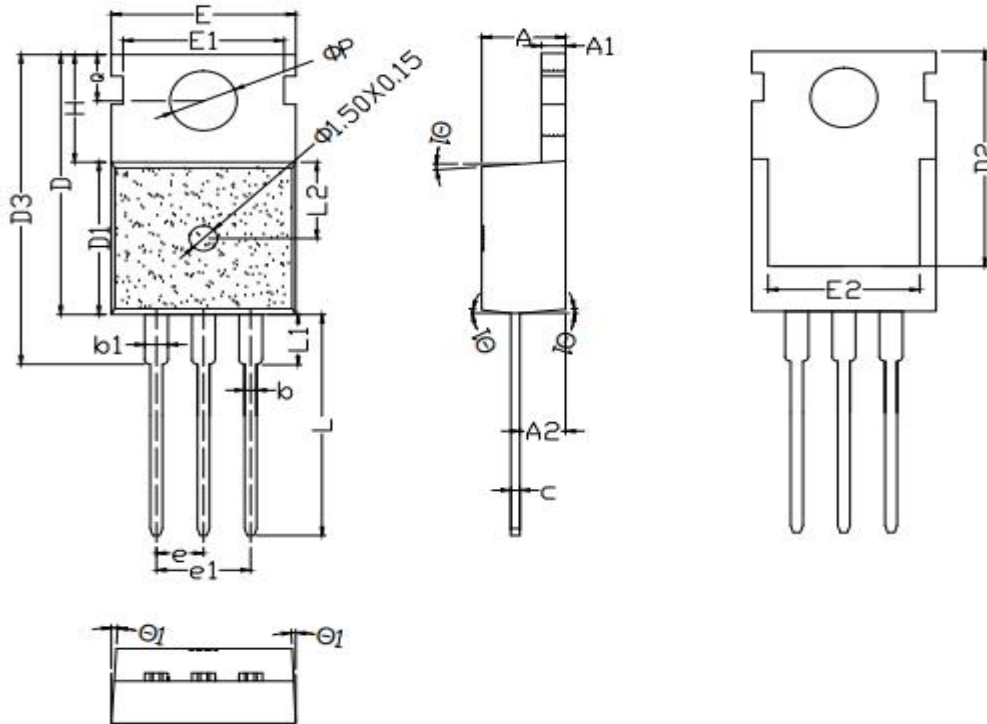
Symbol	Dimensions(mm)		
	Min.	Typ.	Max.
A	4.40	4.57	4.70
A1	1.22	-	1.32
A2	2.59	2.69	2.79
b	0.77	-	0.90
b1	0.76	0.81	0.86
b2	1.23	-	1.36
b3	1.22	1.27	1.32
c	0.34	-	0.47
c1	0.33	0.38	0.43
D	15.15	15.45	15.75
D1	9.05	9.15	9.25
D2	11.40	-	12.88
E	9.96	10.16	10.36
E1	6.86	-	8.89
e	2.44	2.54	2.64
e1	4.98	5.08	5.18
H1	6.10	6.30	6.50
L	12.70	-	13.12
L1	-	-	3.90
ΦP	3.80	3.84	3.88
Q	2.60	-	2.90
θ1	5°	7°	9°
θ2	1°	2°	5°

**Mechanical Dimensions**
**TO-220C (Package 2)**
**Unit: mm**


Symbol	Dimensions(mm)		
	Min.	Typ.	Max.
A	4.30	4.50	4.70
A1	1.25	1.30	1.40
A2	2.20	2.40	2.60
b	0.70	0.80	0.95
b1	-	1.27	-
c	0.40	0.50	0.65
D	15.20	15.70	16.20
D1	9.00	9.20	9.40
E	9.70	10.00	10.20
e		2.54	
e1		5.08	
L	12.60	13.08	13.60
L1	-	3.00	-
ΦP	3.50	3.60	3.80
Q	2.60	2.80	3.00
θ1		3°	
θ2		3°	
θ2		3°	

**Mechanical Dimensions**
**TO-220C (Package 3)**

Unit: mm



Symbol	Dimensions(mm)		
	Min.	Typ.	Max.
A	4.40	4.50	4.60
A1	1.25	1.30	1.35
A2	2.30	2.40	2.50
b	0.70	0.80	0.90
b1	1.25	1.33	1.42
c	0.45	0.50	0.55
D	15.50	15.75	16.00
D1	9.10	9.20	9.30
D2	12.90	13.10	13.30
D3	15.45	15.80	16.15
E	9.80	10.02	10.15
e	2.54BSC		
e1	5.08BSC		
L	13.00	13.28	13.45
L1	-	-	3.40
ΦP	3.55	3.65	3.75
Q	2.65	2.75	2.85
θ1	2°	-	7°
E1	8.55	8.70	8.85
E2	7.40	7.60	7.80
H	6.40	6.50	6.60
L2	4.50	4.65	4.80



Shenzhen Sanrise Technology Co., LTD.

<http://www.sanrise-tech.com>

#### **IMPORTANT NOTICE**

Shenzhen Sanrise Technology Co., LTD. reserves the right to make changes without further notice to any products or specifications herein. Shenzhen Sanrise Technology Co., LTD. does not assume any responsibility for use of any its products for any particular purpose, nor does Shenzhen Sanrise Technology Co., LTD. assume any liability arising out of the application or use of any its products or circuits. Shenzhen Sanrise Technology Co., LTD. does not convey any license under its patent rights or other rights nor the rights of others.

---

#### **Main Site:**

##### **- Headquarter**

Shenzhen Sanrise Technology Co., LTD.  
A1206, Skyworth building, No. 008, gaoxinnan 1st Road,  
Gaoxin District, Yuehai street,, Nanshan District, ShenZhen,  
P.R.China

Tel: +86-755-22953335

Fax: +86-755-22916878

##### **- Shanghai Office**

Shenzhen Sanrise Technology Co., LTD.  
Rm.401, Building B, No. 666, Zhangheng Road,  
Zhangjiang Hi-Tech Park, Shanghai, P.R.China

Tel: +86-21-68825918