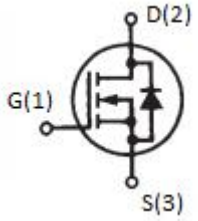
isc N-Channel MOSFET Transistor SUM45N25-58

FEATURES

- Drain Current : I_D= 45@ T_C=25℃
- Drain Source Voltage
  : V_{DSS}= 250V(Min)
- Static Drain-Source On-Resistance
  : $R_{DS(on)}$ = 58mΩ(Max) @ V_{GS}= 10V
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

D²PAK



pin 1.Gate
2.Drain
3.Source
TO-263 package

DESCRITION

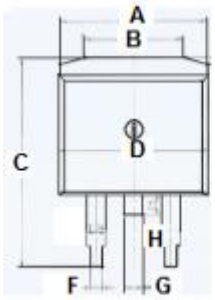
- motor drive, DC-DC converter, power switch and solenoid drive.

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage	250	V
V_{GS}	Gate-Source Voltage	±30	V
I_D	Drain Current-Continuous	45	A
I_{DM}	Drain Current-Single Pulsed	70	A
P_D	Total Dissipation @T_C=25℃	375	W
T_j	Max. Operating Junction Temperature	175	℃
T_{stg}	Storage Temperature	-55~175	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th(J-c)}$	Junction-to-case thermal resistance	0.4	℃/W



DIM	mm	
	MIN	MAX
A	9.8	10.2
B	6.6	6.8
C	15.1	15.3
D	9.6	10
F	0.7	0.9
G	1.26	1.3
H	1.2	1.45
L	4.4	4.6
Q	9.2	9.3
S	1.25	1.35
V	0.4	0.6
W	2.6	2.8

isc N-Channel MOSFET Transistor SUM45N25-58

ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
BV_{DSS}	Drain-Source Breakdown Voltage	V_{GS}=0V; I_D =0.25mA	250	-	V
$V_{GS(th)}$	Gate Threshold Voltage	V_{DS}=V_{GS}; I_D =0.25mA	2.0	4.0	V
$R_{DS(on)}$	Drain-Source On-Resistance	V_{GS}=10V; I_D=20A	-	58	mΩ
I_{GSS}	Gate-Source Leakage Current	V_{GS}=±30V	-	±250	nA
I_{DSS}	Drain-Source Leakage Current	V_{DS}= 200V; V_{GS}= 0V	-	1	μA
V_{SD}	Diode forward voltage	I_S= 45A, V_{GS} = 0V	-	1.5	V