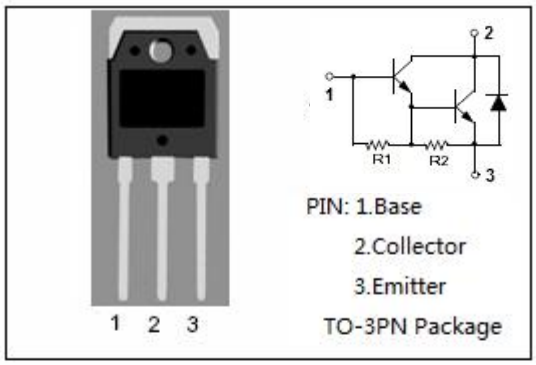
isc Silicon NPN Darlington Power Transistor MJH11018

DESCRIPTION

- High DC Current Gain-
  : h_{FE} = 400(Min)@ I_C= 10A
- Collector-Emitter Sustaining Voltage-
  : $V_{CEO(SUS)}$ = 150V(Min)
- Low Collector-Emitter Saturation Voltage-
  : $V_{CE(sat)}$ = 2.5V(Max)@ I_C= 10A
  = 4.0V(Max)@ I_C= 15A
- Complement to Type MJH11017
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



APPLICATIONS

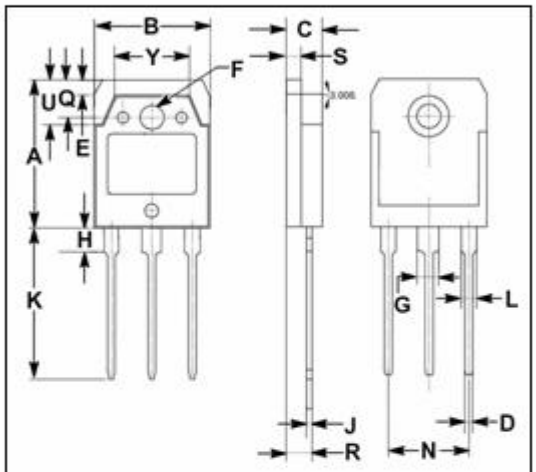
- Designed for general purpose amplifiers ,low frequency switching and motor control applications.

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	150	V
V_{CEO}	Collector-Emitter Voltage	150	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	15	A
I_{CM}	Collector Current-Peak	30	A
I_B	Base Current- Continuous	0.5	A
P_C	Collector Power Dissipation @T_C=25℃	150	W
T_j	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-65~150	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance,Junction to Case	0.83	℃/W



DIM	mm MIN	mm MAX
A	19.60	20.30
B	15.50	15.70
C	4.70	4.90
D	0.90	1.10
E	1.90	2.10
F	3.40	3.60
G	2.90	3.20
H	3.20	3.40
J	0.595	0.605
K	19.80	20.70
L	1.90	2.20
N	10.89	10.91
Q	4.90	5.10
R	3.35	3.45
S	1.995	2.100
U	5.90	6.20
Y	9.90	10.10

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	I_C= 30mA, I_B= 0	150			V
$V_{CE(sat)-1}$	Collector-Emitter Saturation Voltage	I_C= 10A ,I_B= 0.1A			2.5	V
$V_{CE(sat)-2}$	Collector-Emitter Saturation Voltage	I_C= 15A ,I_B= 0.15A			4.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= 15A ,I_B= 0.15A			3.8	V
$V_{BE(on)}$	Base-Emitter On Voltage	I_C= 10A ; V_{CE}= 5V			2.8	V
I_{CBO}	Collector Cutoff Current	V_{CBO}=150V,I_E=0 ; V_{CBO}=150V,I_E=0 ;T_C=150℃			0.5 5.0	mA
I_{CEO}	Collector Cutoff Current	V_{CE}= 150V, I_B=0			1	mA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 5V; I_C=0			2	mA
h_{FE-1}	DC Current Gain	I_C= 10A ; V_{CE}= -5V	400		15000	
h_{FE-2}	DC Current Gain	I_C= 15A ; V_{CE}= -5V	100			