

isc Silicon NPN Power Transistor

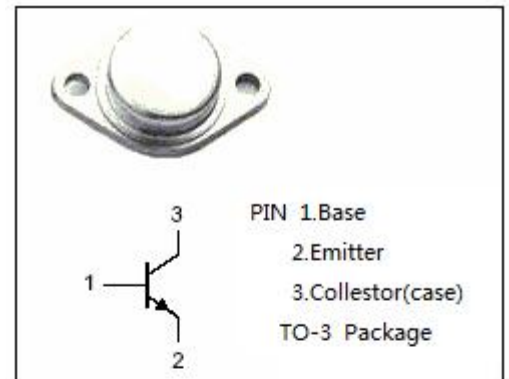
BD368

DESCRIPTION

- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = 80V(\text{Min})$
- Excellent Safe Operating Area
- Complement to Type BD369
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

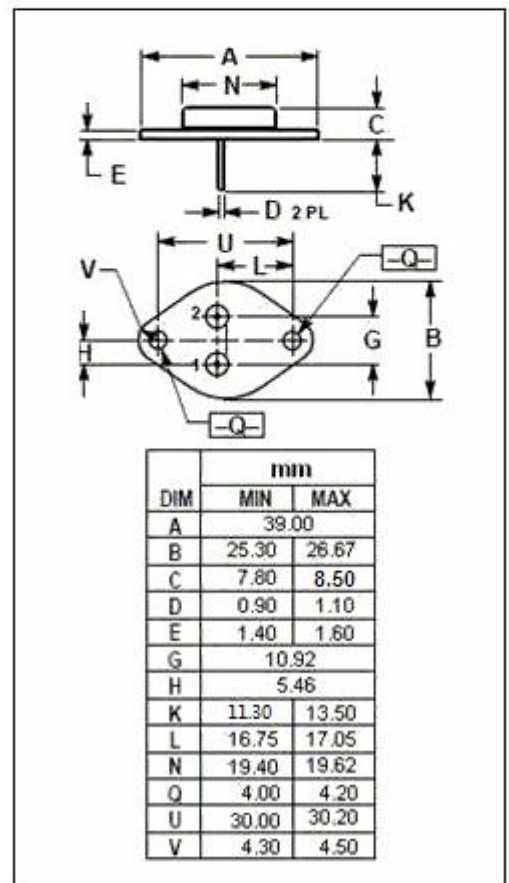
APPLICATIONS

- Designed for linear amplifiers, series pass regulators, and inductive switching applications.



ABSOLUTE MAXIMUM RATINGS($T_a=25^\circ\text{C}$)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	80	V
V_{CEO}	Collector-Emitter Voltage	80	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	25	A
I_B	Base Current-Continuous	5	A
P_C	Collector Power Dissipation@ $T_c=25^\circ\text{C}$	200	W
T_J	Junction Temperature	175	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-65~175	$^\circ\text{C}$



THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	0.875	$^\circ\text{C/W}$

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ELECTRICAL CHARACTERISTICS

T_c=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
V _{CEO(SUS)}	Collector-Emitter Sustaining Voltage	I _C =30mA ; I _B =0	80			V
V _{CE(sat)-1}	Collector-Emitter Saturation Voltage	I _C =10A; I _B =1A			1.0	V
V _{CE(sat)-2}	Collector-Emitter Saturation Voltage	I _C =20A; I _B =2A			1.5	V
V _{BE(sat)-1}	Base-Emitter Saturation Voltage	I _C =10A; I _B =1A			1.5	V
V _{BE(sat)-2}	Base-Emitter Saturation Voltage	I _C =20A; I _B =2A			2.0	V
I _{CBO}	Collector Cutoff Current	V _{CB} =80V; I _E =0			0.1	mA
I _{CEO}	Collector Cutoff Current	V _{CE} = 80V; I _B = 0			0.5	mA
I _{EBO}	Emitter Cutoff current	V _{EB} =5V; I _C =0			0.1	mA
h _{FE-1}	DC Current Gain	I _C =1A ; V _{CE} =5V	40			
h _{FE-2}	DC Current Gain	I _C =15A ; V _{CE} =5V	25		100	
h _{FE-2}	DC Current Gain	I _C =25A ; V _{CE} =5V	5			
f _T	Current-Gain—Bandwidth Product	I _C =1A;V _{CE} =10V;f=1.0MHz	4.0			MHz

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