

isc Silicon NPN Power Transistor

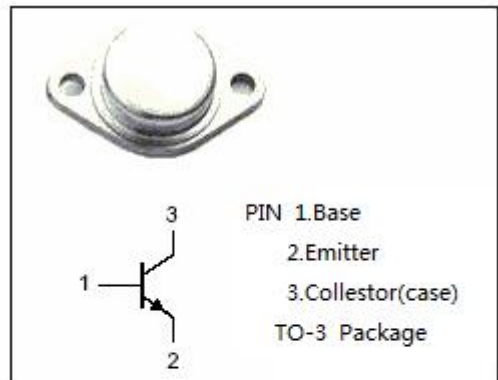
2N3238

DESCRIPTION

- Excellent Safe Operating Area
- Low Collector-Emitter Saturation Voltage
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation.

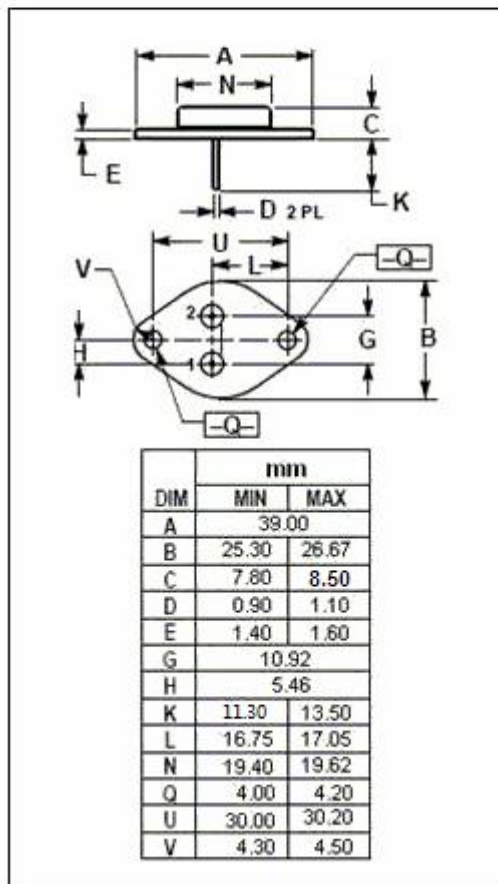
APPLICATIONS

- Designed for general purpose high power switch and amplifier applications.



ABSOLUTE MAXIMUM RATINGS(T_a=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V _{CBO}	Collector-Base Voltage	80	V
V _{CEO}	Collector-Emitter Voltage	80	V
V _{EBO}	Emitter-Base Voltage	7	V
I _c	Collector Current-Continuous	15	A
P _c	Collector Power Dissipation@T _c =25°C	150	W
T _J	Junction Temperature	175	°C
T _{stg}	Storage Temperature	-65~175	°C



THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R _{th j-c}	Thermal Resistance, Junction to Case	1.17	°C/W

isc Silicon NPN Power Transistor**2N3238****ELECTRICAL CHARACTERISTICS** $T_C=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	$I_C=30\text{mA}; I_B=0$	80		V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=10\text{A}; I_B=1.33\text{A}$		3	V
$V_{BE(on)}$	Base-Emitter On Voltage	$I_C=10\text{A}; V_{CE}=12\text{V}$		4	V
h_{FE}	DC Current Gain	$I_C=10\text{A}; V_{CE}=12\text{V}$	8.5	25	
f_T	Current Gain-Bandwidth Product	$I_C=0.5\text{A}; V_{CE}=4\text{V}; f=1.0\text{MHz}$	1.0		MHz