

isc Silicon NPN Power Transistor

BU128

DESCRIPTION

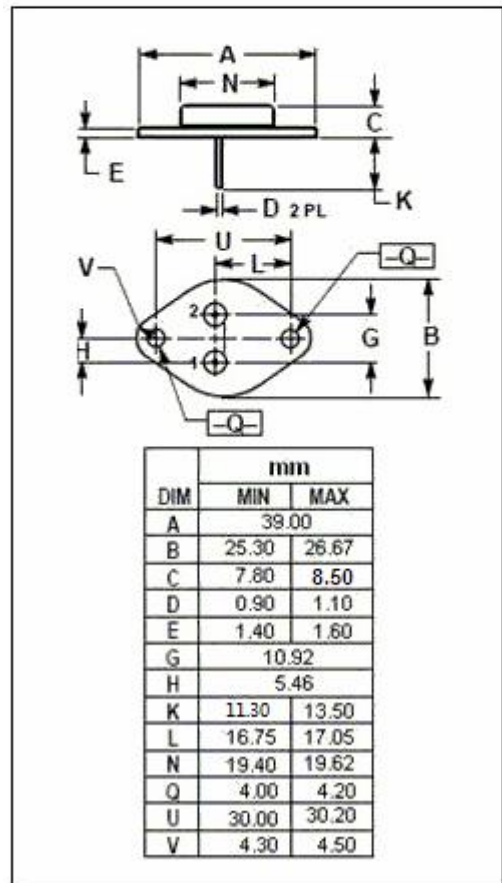
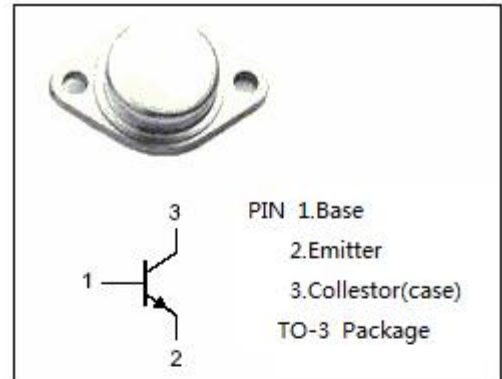
- Excellent Safe Operating Area
- Collector-Emitter Saturation Voltage-
: $V_{CE(sat)} = 1.0 \text{ V(Max)} @ I_C = 5 \text{ A}$
- Collector-Emitter Sustaining Voltage-
: $V_{CEO(SUS)} = 200 \text{ V(Min)}$
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for general-purpose switching and amplifier applications

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	300	V
V_{CEO}	Collector-Emitter Voltage	200	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current-Continuous	10	A
I_{CM}	Collector Current-Peak	15	A
I_B	Base Current	4	A
P_C	Collector Power Dissipation@ $T_C=25^\circ\text{C}$	62	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature	-65~150	$^\circ\text{C}$



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ELECTRICAL CHARACTERISTICS

 $T_C=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	$I_C=50\text{mA}; I_B=0$	200			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=5\text{A}; I_B=0.5\text{A}$			1.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C=5\text{A}; I_B=0.5\text{A}$			1.2	V
I_{CBO}	Collector Base Cutoff Current	$V_{CB}=300\text{V}; I_E=0$			0.1	mA
I_{EBO}	Emitter Cutoff Current	$V_{EB}=6\text{V}; I_C=0$			0.1	mA
h_{FE}	DC Current Gain	$I_C=5\text{A}; V_{CE}=1\text{V}$	40			
f_T	Current Gain-Bandwidth Product	$I_C=0.5\text{A}; V_{CE}=10\text{V}$		60		MHz
t_{off}	Turn-Off Time	$I_C=5\text{A}; I_B=0.5\text{A}$		0.4		μs

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