

isc Silicon NPN Power Transistor

BU123

DESCRIPTION

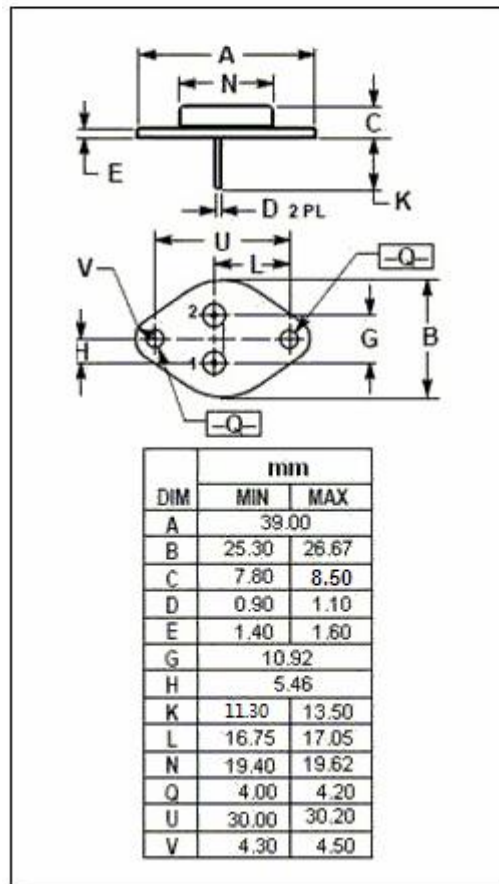
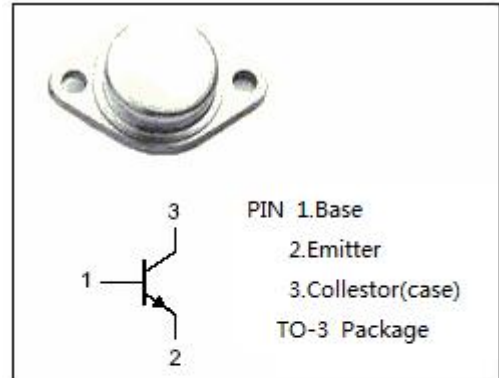
- Excellent Safe Operating Area
- Collector-Emitter Saturation Voltage-
: $V_{CE(sat)} = 1.0 \text{ V(Max)} @ I_C = 5\text{A}$
- Collector-Emitter Sustaining Voltage-
: $V_{CEO(SUS)} = 120 \text{ V(Min)}$
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for horizontal deflection output stage of TVs and CRTs applications

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	180	V
V_{CEO}	Collector-Emitter Voltage	120	V
V_{EBO}	Emitter-Base Voltage	8	V
I_C	Collector Current-Continuous	5	A
I_{CM}	Collector Current-Peak	8	A
I_B	Base Current	2	A
P_C	Collector Power Dissipation@ $T_C=25^\circ\text{C}$	67	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	MAX	UNIT
$V_{CE0(SUS)}$	Collector-Emitter Sustaining Voltage	$I_C= 50\text{mA}$; $I_B= 0$	120		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	$V_{CB}=180\text{V}$; $I_E= 0$		1.0	mA
I_{EBO}	Emitter Cutoff Current	$V_{EB}= 7\text{V}$; $I_C= 0$		1.0	mA
h_{FE-1}	DC Current Gain	$I_C= 1\text{A}$; $V_{CE}= 5\text{V}$	25	250	
h_{FE-2}	DC Current Gain	$I_C= 5\text{A}$; $V_{CE}= 5\text{V}$	5		
f_T	Current Gain-Bandwidth Product	$I_C= 0.5\text{A}$; $V_{CE}= 10\text{V}$	10		MHz

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