

isc Silicon NPN Power Transistor
BU114
DESCRIPTION

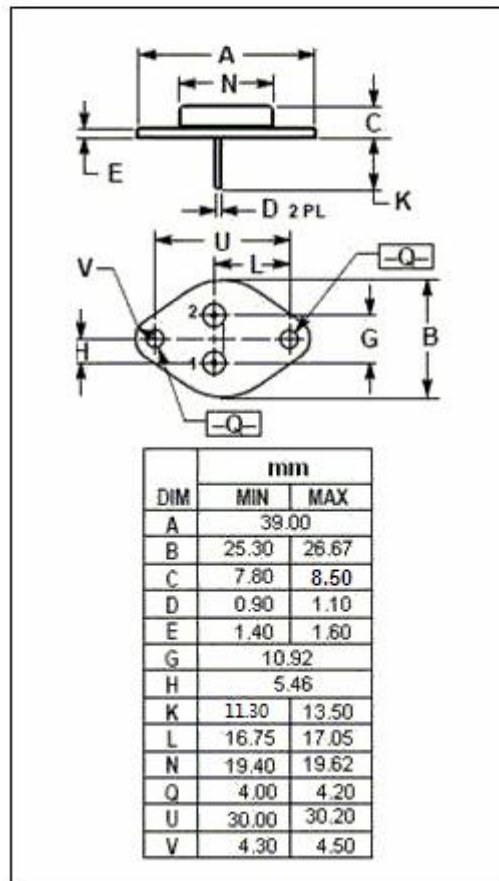
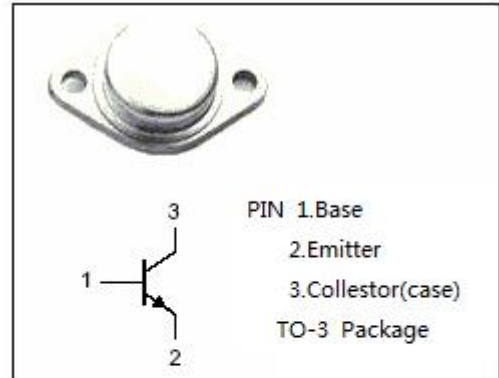
- Excellent Safe Operating Area
- Collector-Emitter Saturation Voltage-
: $V_{CE(sat)} = 1.0 \text{ V(Max)} @ I_C = 5A$
- Collector-Emitter Sustaining Voltage-
: $V_{CEO(SUS)} = 150 \text{ V(Min)}$
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

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	250	V
V_{CEO}	Collector-Emitter Voltage	150	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current-Continuous	6	A
I_{CM}	Collector Current-Peak	10	A
I_B	Base Current	4	A
P_C	Collector Power Dissipation@ $T_C=25^\circ\text{C}$	50	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature	-65~150	$^\circ\text{C}$



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

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{CE0(SUS)}$	Collector-Emitter Sustaining Voltage	$I_C= 50\text{mA}$; $I_B= 0$	150		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	$V_{CB}=250\text{V}$; $I_E= 0$		1.0	mA
I_{EBO}	Emitter Cutoff Current	$V_{EB}= 6\text{V}$; $I_C= 0$		1.0	mA
h_{FE}	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
t_{off}	Turn-Off Time	$I_C= 5\text{A}$; $I_B= 0.5\text{A}$		1.0	μs

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