

isc Silicon NPN Power Transistor
BU133
DESCRIPTION

- Collector-Emitter Sustaining Voltage-
: $V_{CE(SUS)} = 250V(\text{Min.})$
- Collector Saturation Voltage-
: $V_{CE(sat)} = 1.5V(\text{Max.}) @ I_C = 2A$
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

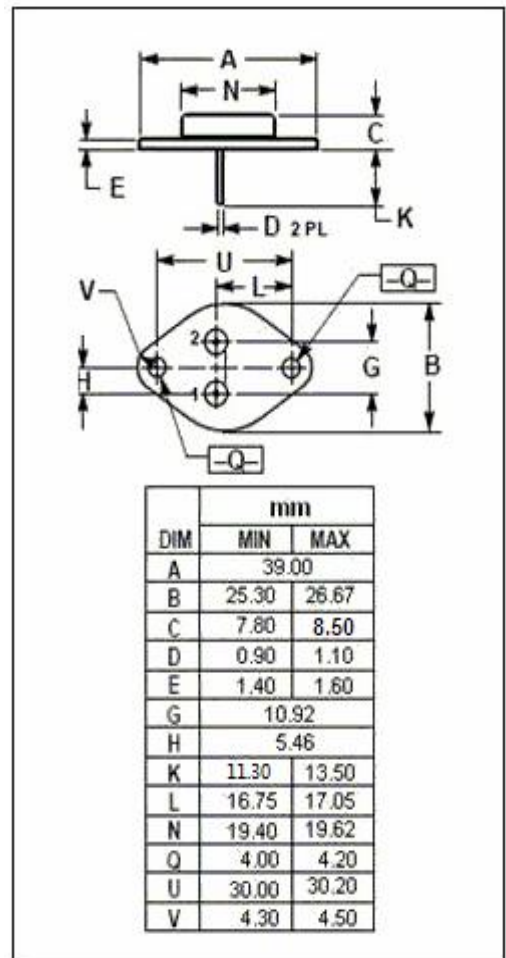
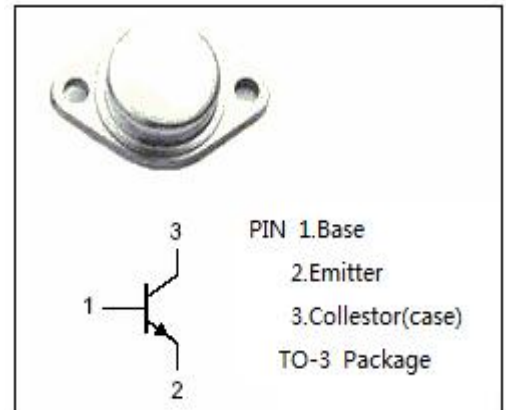
- Designed for use in color TV receiver's chopper supply.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	750	V
V_{CEO}	Collector-Emitter Voltage	250	V
V_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current-Continuous	3	A
P_C	Collector Power Dissipation @ $T_C = 50^\circ\text{C}$	30	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-65~150	$^\circ\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	2.33	$^\circ\text{C/W}$



isc Silicon NPN Power Transistor**BU133****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	$I_C= 50\text{mA}; I_B= 0$	250			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	$I_E= 10\text{mA}; I_C= 0$	7			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C= 2\text{A}; I_B= 0.5\text{A}$			1.5	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C= 2\text{A}; I_B= 0.5\text{A}$			1.4	V
I_{CBO}	Collector Cutoff Current	$V_{CB}= 750\text{V}; I_E= 0$			100	μA
I_{EBO}	Emitter Cutoff Current	$V_{EB}= 7\text{V}; I_C= 0$			100	μA
h_{FE}	DC Current Gain	$I_C= 1\text{A}; V_{CE}= 5\text{V}$	15		80	
f_T	Current-Gain—Bandwidth Product	$I_C= 0.2\text{A}; V_{CE}= 10\text{V}$		8		MHz

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