

isc Silicon NPN Power Transistor

2SD144

DESCRIPTION

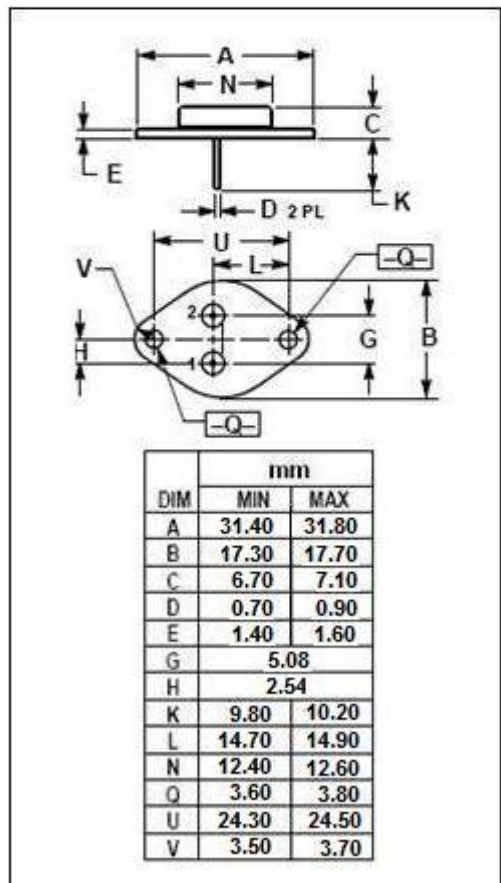
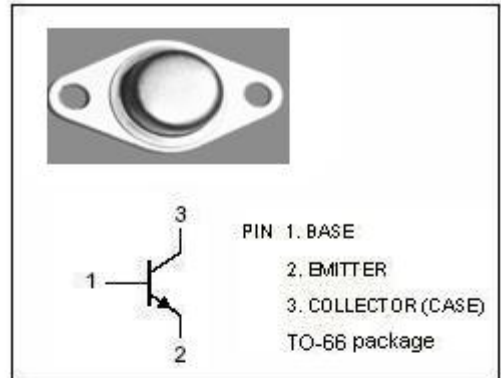
- DC Current Gain $-h_{FE} = 40(\text{Min})@ I_C = 1A$
- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = 50V(\text{Min})$
- With TO-66 Package
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for use in power amplifier applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	100	V
V_{CEO}	Collector-Emitter Voltage	50	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	2.0	A
I_{CM}	Collector Current-Peak	3.0	A
I_B	Base Current	1.0	A
P_C	Collector Power Dissipation@ $T_C=25^\circ\text{C}$	15	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature	-55~150	$^\circ\text{C}$



isc Silicon NPN Power Transistor**2SD144****ELECTRICAL CHARACTERISTICS** $T_C=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{CEQ(SUS)}$	Collector-Emitter Sustaining Voltage	$I_C=20\text{mA}$; $I_B=0$	50		V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=3\text{A}$; $I_B=0.3\text{A}$		1.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C=3\text{A}$; $I_B=0.3\text{A}$		1.8	V
I_{CBO}	Collector Cutoff Current	$V_{CB}=100\text{V}$; $V_{EB}=0$		0.1	mA
I_{CEO}	Collector Cutoff Current	$V_{CE}=50\text{V}$; $I_B=0$		0.1	mA
I_{EBO}	Emitter Cutoff Current	$V_{EB}=5\text{V}$; $I_C=0$		0.1	mA
h_{FE}	DC Current Gain	$I_C=1\text{A}$; $V_{CE}=2\text{V}$	40	200	
f_T	Current-Gain—Bandwidth Product	$I_C=0.5\text{A}$; $V_{CE}=10\text{V}$	10		MHz

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