

isc Silicon PNP Power Transistor

2N5744

DESCRIPTION

- Excellent Safe Operating Area
- Low Collector-Emitter Saturation Voltage
- 100% tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

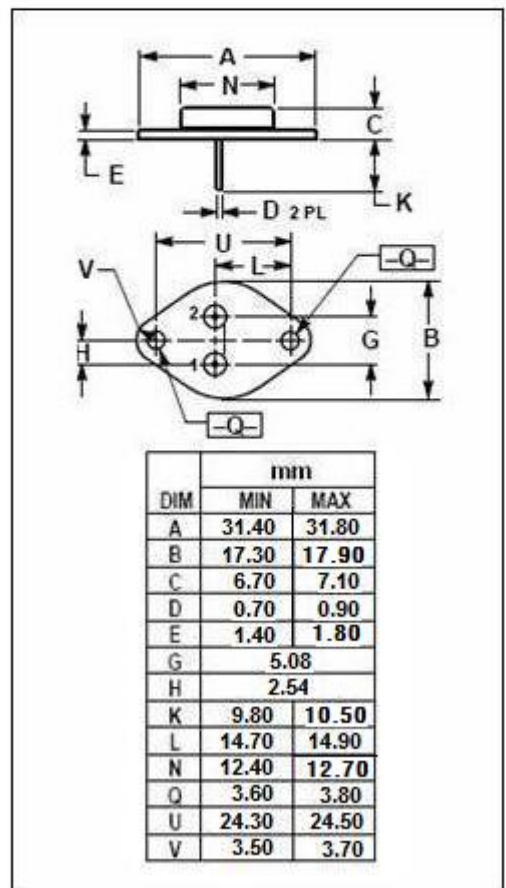
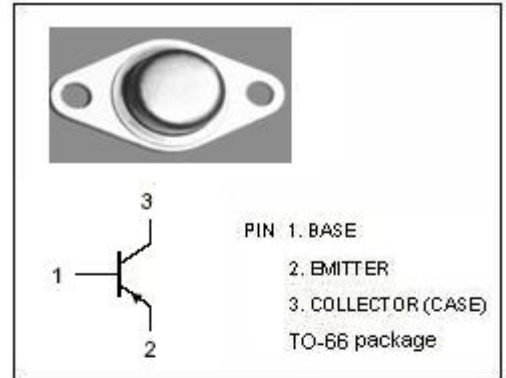
- Designed for general purpose switching and power amplifier applications

ABSOLUTE MAXIMUM RATINGS(T_a=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V _{CB0}	Collector-Base Voltage	-100	V
V _{CEO}	Collector-Emitter Voltage	-100	V
V _{EBO}	Emitter-Base Voltage	-5	V
I _C	Collector Current-Continuous	-20	A
P _C	Collector Power Dissipation@T _C =100°C	25	W
T _J , T _{stg}	Operating and Storage Junction Temperature Range	-65~+200	°C

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R _{th j-c}	Thermal Resistance, Junction to Case	7	°C/W



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ELECTRICAL CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{CE(sat)-1}$	Collector-Emitter Saturation Voltage	$I_C = -10\text{A}; I_B = -1.0\text{A}$		-1.0	V
$V_{CE(sat)-2}$	Collector-Emitter Saturation Voltage	$I_C = -20\text{A}; I_B = -4.0\text{A}$		-3.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C = -10\text{A}; I_B = -1.0\text{A}$		-1.8	V
$V_{BE(ON)}$	Base-Emitter On Voltage	$I_C = -10\text{A}; V_{CE} = -5\text{V}$		-1.5	V
I_{CEO}	Collector Cutoff Current	$V_{CE} = -100\text{V}; I_B = 0$		-0.1	mA
I_{EBO}	Emitter Cutoff Current	$V_{EB} = -5\text{V}; I_C = 0$		-0.1	mA
h_{FE-1}	DC Current Gain	$I_C = -10\text{A}; V_{CE} = -5\text{V}$	20	80	
h_{FE-2}	DC Current Gain	$I_C = -20\text{A}; V_{CE} = -5\text{V}$	10		

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