

isc Silicon NPN Power Transistor

SDT7B04

DESCRIPTION

- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = 140V(\text{Min.})$
- DC Current Gain-
: $h_{FE} = 20 \sim 250(\text{Min.}) @ I_C = 2.5A$
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

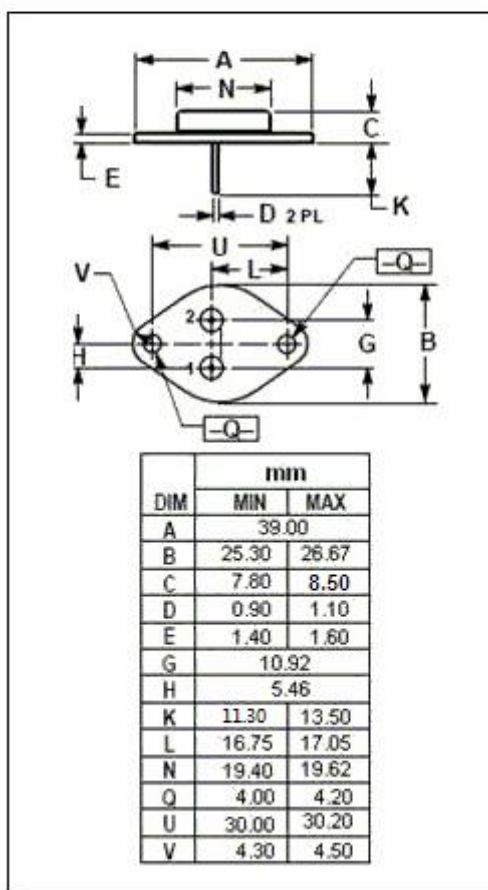
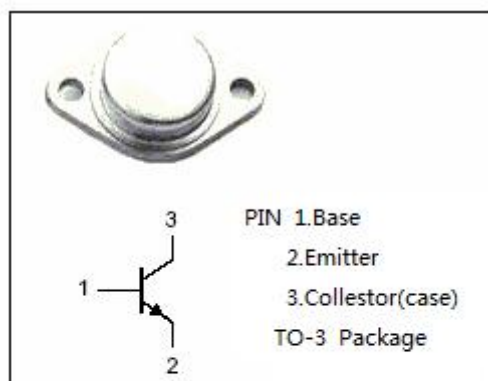
- Designed for B&W TV horizontal output, regulated power supply and power amplifier applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	150	V
V_{CEO}	Collector-Emitter Voltage	140	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	10	A
P_C	Collector Power Dissipation@ $T_C = 75^\circ C$	50	W
T_J	Junction Temperature	175	$^\circ C$
T_{stg}	Storage Temperature	-55~175	$^\circ C$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th j-c}$	Thermal Resistance, Junction to Case	3	$^\circ C/W$



isc Silicon NPN Power Transistors**SDT7B04****ELECTRICAL CHARACTERISTICS****T_C=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
V _{(BR)CEO}	Collector-Emitter Breakdown Voltage	I _C = 5mA; I _B = 0	140		V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 2.5A; I _B = 0.25A		1.5	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 2.5A; I _B = 0.25A		1.2	V
I _{CEO}	Collector Cutoff Current	V _{CE} = 20V; I _B =0		1.0	mA
h _{FE}	DC Current Gain	I _C = 2.5A; V _{CE} = 3V	20	250	

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