

isc Silicon NPN Power Transistor

2SC1051

DESCRIPTION

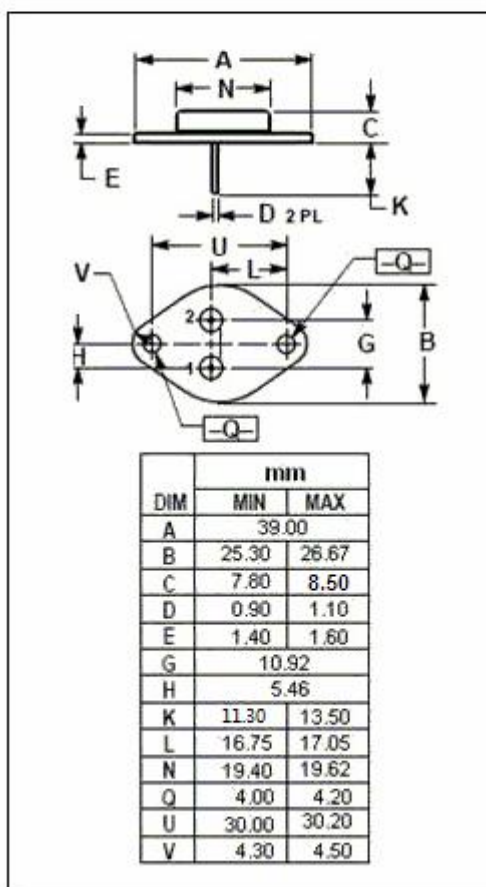
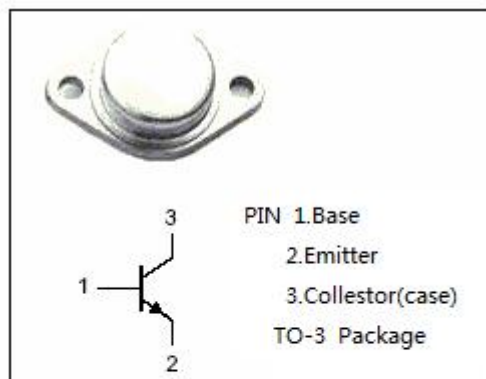
- With TO-3 Package
- High breakdown voltage
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- For low frequency power amplifier and large power switching applications

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	150	V
V_{CEO}	Collector-Emitter Voltage	100	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	7	A
P_C	Collector Power Dissipation	60	W
T_J	Junction Temperature	150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^{\circ}\text{C}$



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ELECTRICAL CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=5\text{A}; I_B=500\text{mA}$			2.0	V
$V_{BE(ON)}$	Base-Emitter ON Voltage	$I_C=1.0\text{A}; V_{CE}=5\text{V}$			1.5	V
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C=10\text{mA}; I_B=0$	100			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	$I_E=1\text{mA}; I_C=0$	5			V
h_{FE}	DC Current Gain	$I_C=1.0\text{A}; V_{CE}=5\text{V}$	40		320	
f_T	Current-Gain—Bandwidth Product	$I_C=0.5\text{A}; V_{CE}=5\text{V}$		8		MHz

◆ h_{FE} Classifications

C	D	E	F
40-80	60-120	100-200	160-320

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