

# isc Silicon NPN Power Transistor

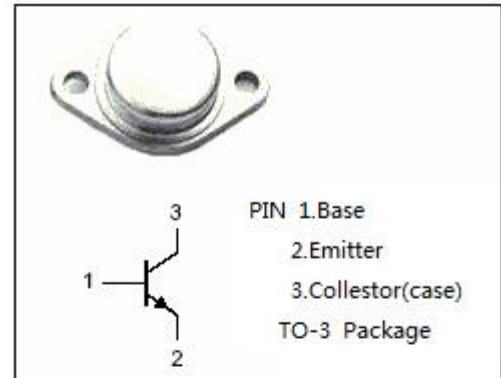
# 2N4111

### DESCRIPTION

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

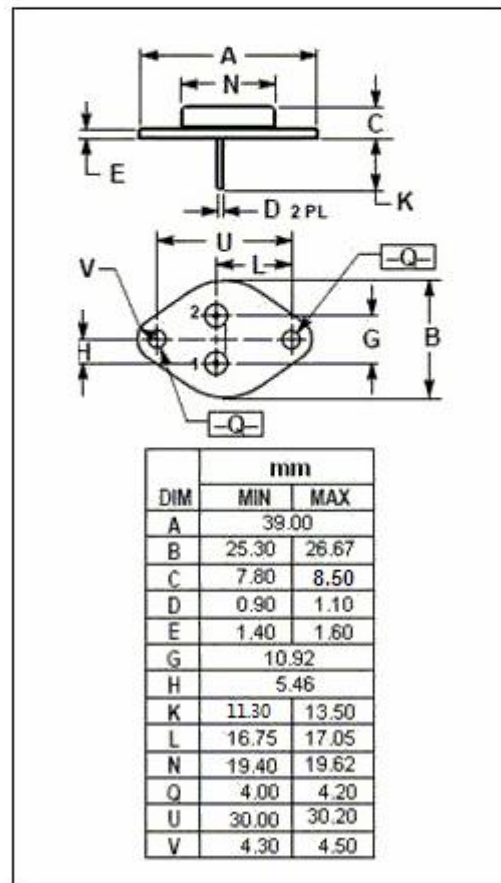
### APPLICATIONS

- Designed for general-purpose switching and amplifier applications



### ABSOLUTE MAXIMUM RATINGS(T<sub>a</sub>=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V <sub>CB0</sub>	Collector-Base Voltage	100	V
V <sub>CEO</sub>	Collector-Emitter Voltage	60	V
V <sub>EBO</sub>	Emitter-Base Voltage	8	V
I <sub>c</sub>	Collector Current-Continuous	5	A
P <sub>C</sub>	Collector Power Dissipation@T <sub>C</sub> =25°C	30	W
T <sub>J</sub>	Operating Temperature Range	-65~+165	°C
T <sub>stg</sub>	Storage Junction Temperature Range	-65~+165	°C



### THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R <sub>th j-c</sub>	Thermal Resistance, Junction to Case	4.67	°C/W

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## ELECTRICAL CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	$I_C=30\text{mA}$ ; $I_B=0$	60		V
$I_{CEO}$	Collector Cutoff Current	$V_{CE}=60\text{V}$ ; $I_B=0$		0.1	mA
$I_{EBO}$	Emitter Cutoff Current	$V_{EB}=8.0\text{V}$ ; $I_C=0$		1	mA
$h_{FE}$	DC Current Gain	$I_C=2\text{A}$ ; $V_{CE}=5\text{V}$	40	120	
$f_T$	Current Gain-Bandwidth Product	$I_C=0.5\text{A}$ ; $V_{CE}=10\text{V}$ ; $f=1.0\text{MHz}$	50		MHz

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