

**isc Silicon PNP Power Transistor**

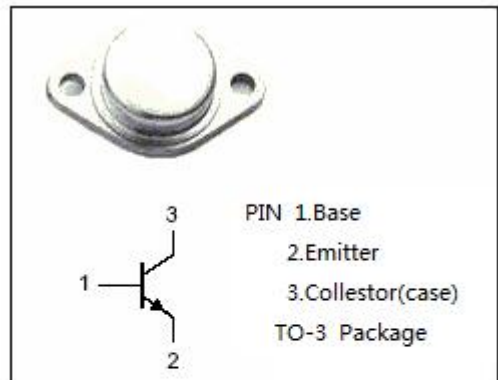
**2N3789**

**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.

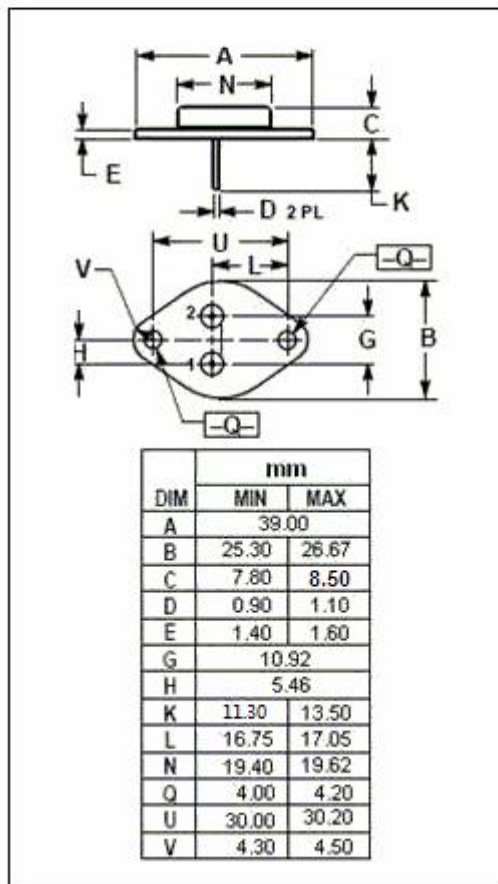
**APPLICATIONS**

- Designed for medium-speed switching and amplifier applications.



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

SYMBOL	PARAMETER	VALUE	UNIT
V <sub>CBO</sub>	Collector-Base Voltage	-60	V
V <sub>CEO</sub>	Collector-Emitter Voltage	-60	V
V <sub>EBO</sub>	Emitter-Base Voltage	-7	V
I <sub>c</sub>	Collector Current-Continuous	-10	A
P <sub>c</sub>	Collector Power Dissipation@T <sub>c</sub> =25°C	150	W
T <sub>J</sub>	Junction Temperature	-65~200	°C
T <sub>stg</sub>	Storage Temperature	-65~200	°C



**THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
R <sub>th j-c</sub>	Thermal Resistance, Junction to Case	1.17	°C/W

**isc Silicon PNP Power Transistor****2N3789****ELECTRICAL CHARACTERISTICS** $T_C=25^\circ\text{C}$  unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{CEO(SUS)}$ *	Collector-Emitter Sustaining Voltage	$I_C=-200\text{mA}; I_B=0$	-60		V
$I_{EBO}$	Emitter Cutoff Current	$V_{EB}=-7\text{V}; I_C=0$		-5	mA
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=-4\text{A}; I_B=-0.4\text{A}$		-1.0	V
$V_{BE(ON)-1}$	Base-Emitter On Voltage	$I_C=-5\text{A}; V_{CE}=-2\text{V}$		-2.0	V
$V_{BE(ON)-2}$	Base-Emitter On Voltage	$I_C=-10\text{A}; V_{CE}=-4\text{V}$		-4.0	V
$h_{FE-1}$	DC Current Gain	$I_C=-1\text{A}; V_{CE}=-2\text{V}$	25	90	
$h_{FE-2}$	DC Current Gain	$I_C=-3\text{A}; V_{CE}=-2\text{V}$	15		
$f_T$	Current Gain-Bandwidth Product	$I_C=-0.5\text{A}; V_{CE}=-10\text{V}; f=1.0\text{MHz}$	4		MHz

\*:Pulse test:Pulse width=300us,duty cycle $\leq$ 2%