

isc Silicon NPN Power Transistor

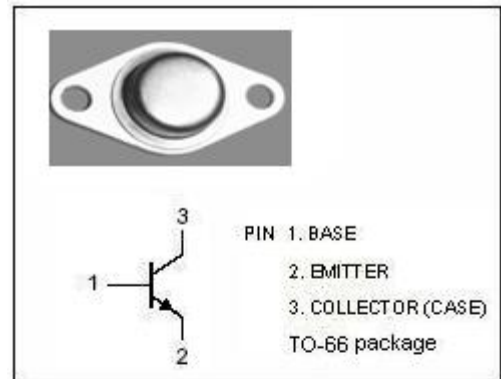
2N3879

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.

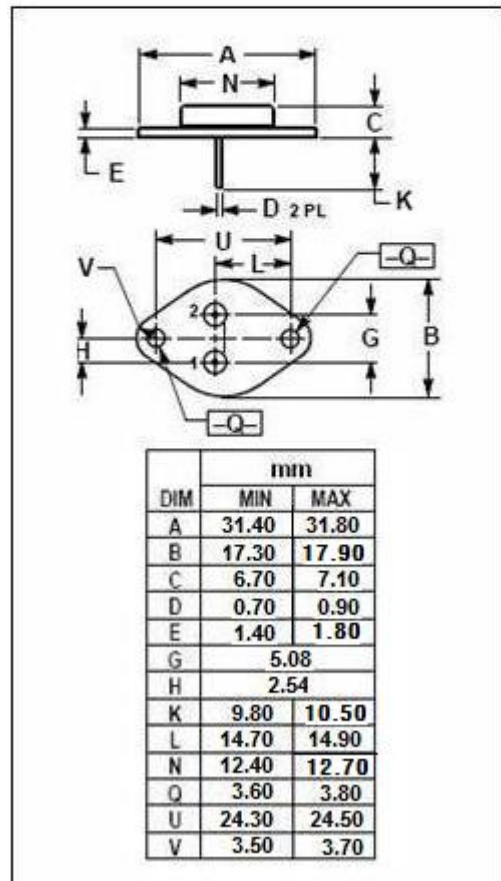
APPLICATIONS

- Designed for high speed switching and linear- amplifier applications.



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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	120	V
V_{CEO}	Collector-Emitter Voltage	75	V
V_{EBO}	Emitter-Base Voltage	7	V
I_c	Collector Current-Continuous	7	A
P_c	Collector Power Dissipation@ $T_c=25^{\circ}\text{C}$	35	W
T_J	Junction Temperature	-65~200	$^{\circ}\text{C}$
T_{stg}	Storage Temperature	-65~200	$^{\circ}\text{C}$



THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	5	$^{\circ}\text{C}/\text{W}$

isc Silicon NPN Power Transistor**2N3879****ELECTRICAL CHARACTERISTICS** $T_C=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{CEO(SUS)}^*$	Collector-Emitter Sustaining Voltage	$I_C=200\text{mA}; I_B=0$	75		V
I_{EBO}	Emitter Cutoff Current	$V_{EB}=7\text{V}; I_C=0$		10	mA
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=4\text{A}; I_B=0.4\text{A}$		1.2	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C=4\text{A}; I_B=0.4\text{A}$		2.0	V
h_{FE-1}^*	DC Current Gain	$I_C=4\text{A}; V_{CE}=2\text{V}$	12	100	
h_{FE-2}^*	DC Current Gain	$I_C=4\text{A}; V_{CE}=5\text{V}$	20	80	
h_{FE-3}^*	DC Current Gain	$I_C=0.5\text{A}; V_{CE}=5\text{V}$	40		

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

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