

isc Silicon NPN Power Transistor

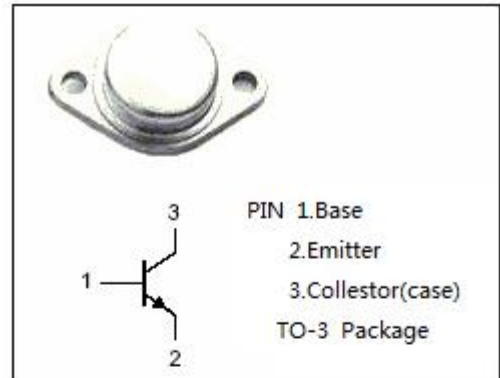
2N4070

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.

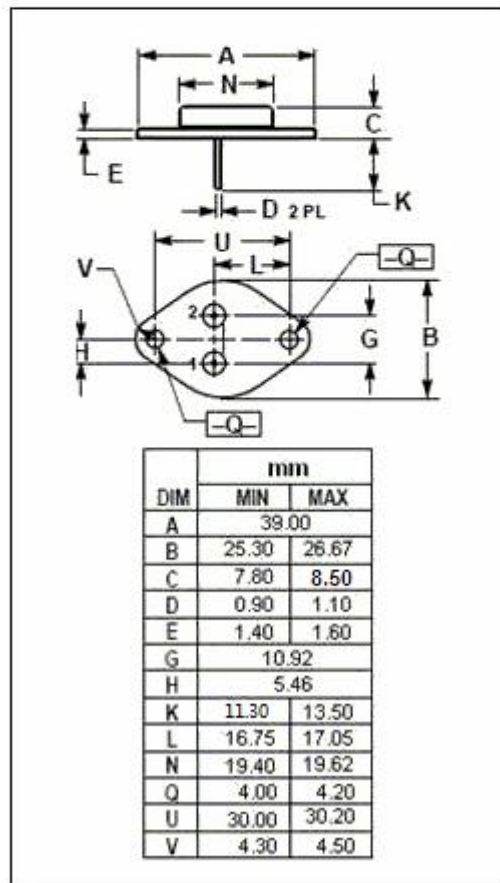
APPLICATIONS

- Designed for general-purpose switching and amplifier applications



ABSOLUTE MAXIMUM RATINGS(T_a=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V _{CB0}	Collector-Base Voltage	120	V
V _{CEO}	Collector-Emitter Voltage	100	V
V _{EBO}	Emitter-Base Voltage	8	V
I _c	Collector Current-Continuous	10	A
P _C	Collector Power Dissipation@T _C =25°C	65	W
T _J	Operating Temperature Range	-65~+150	°C
T _{stg}	Storage Junction Temperature Range	-65~+200	°C



THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R _{th j-c}	Thermal Resistance, Junction to Case	1.5	°C/W

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ELECTRICAL CHARACTERISTICS

T_C=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
V _{CEO(SUS)} *	Collector-Emitter Sustaining Voltage	I _C =100mA ; I _B =0	100		V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 5A; I _B = 0.5A		0.6	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 5A; I _B = 0.5A		1.5	V
I _{CEO}	Collector Cutoff Current	V _{CE} = 100V; I _B =0		0.25	mA
I _{EBO}	Emitter Cutoff Current	V _{EB} = 8.0V; I _C =0		5.0	mA
h _{FE}	DC Current Gain	I _C = 5A ; V _{CE} = 5V	40	120	
f _T	Current Gain-Bandwidth Product	I _C = 0.2A ; V _{CE} = 10V;f=1.0MHz	20		MHz

*:Pulse test:Pulse width=300us,duty cycle≤2%

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