

isc Silicon NPN Power Transistor
2N4348
DESCRIPTION

- Excellent Safe Operating Area
- Low Collector-Emitter Saturation Voltage
- The device employs the popular JEDEC TO-3
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation.

APPLICATIONS

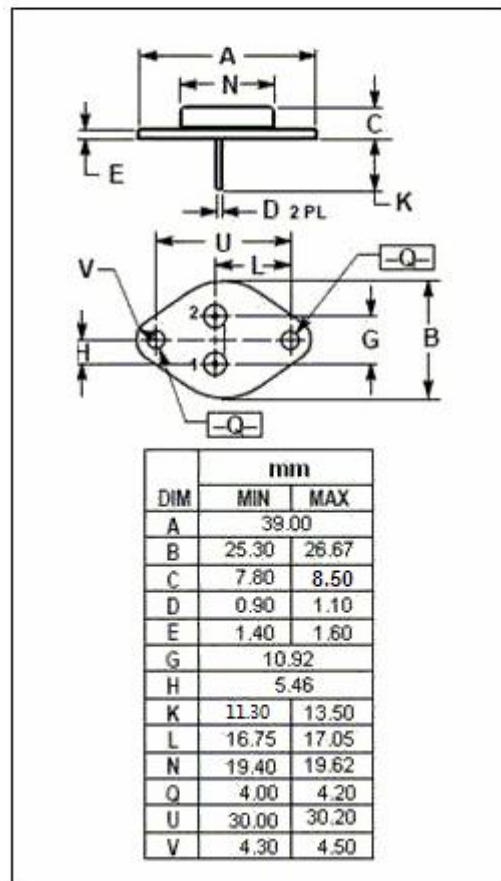
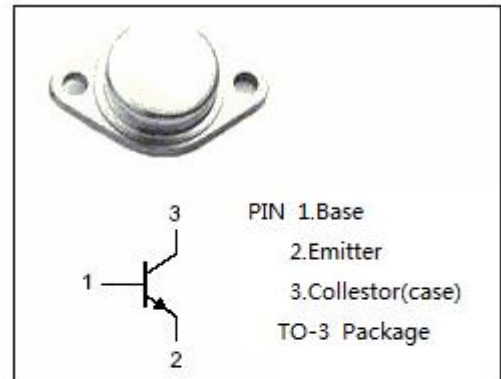
- High voltage high current power transistors

ABSOLUTE MAXIMUM RATINGS(T_a=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V _{CB0}	Collector-Base Voltage	140	V
V _{CEO}	Collector-Emitter Voltage	120	V
V _{EBO}	Emitter-Base Voltage	7	V
I _c	Collector Current-Continuous	10	A
P _c	Collector Power Dissipation@T _c =25°C	120	W
T _J	Junction Temperature	200	°C
T _{stg}	Storage Temperature	-65~200	°C

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R _{th j-c}	Thermal Resistance,Junction to Case	1.46	°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 =200mA; I _B = 0	120		V
I _{CEO}	Collector Cutoff Current	V _{CE} =100V; I _B = 0		200	mA
I _{EBO}	Emitter Cutoff Current	V _{EB} = 7V; I _C = 0		5	mA
V _{CE(sat)-1} *	Collector-Emitter Saturation Voltage	I _C = 5A; I _B = 500mA		1.0	V
V _{CE(sat)-2} *	Collector-Emitter Saturation Voltage	I _C = 10A; I _B = 1.25mA		2.0	V
V _{BE(ON)-1} *	Base-Emitter On Voltage	I _C =5A; V _{CE} = 4V		2.0	V
V _{BE(ON)-2} *	Base-Emitter On Voltage	I _C =10A; V _{CE} = 4V		3.0	V
h _{FE-1} *	DC Current Gain	I _C =5A; V _{CE} = 4V	15	60	
h _{FE-2} *	DC Current Gain	I _C = 10A; V _{CE} = 4V	10		

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

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