

isc Silicon NPN Power Transistor

MJ16002

DESCRIPTION

- Fast turn-off times
- Operating temperature range -65~200°C
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

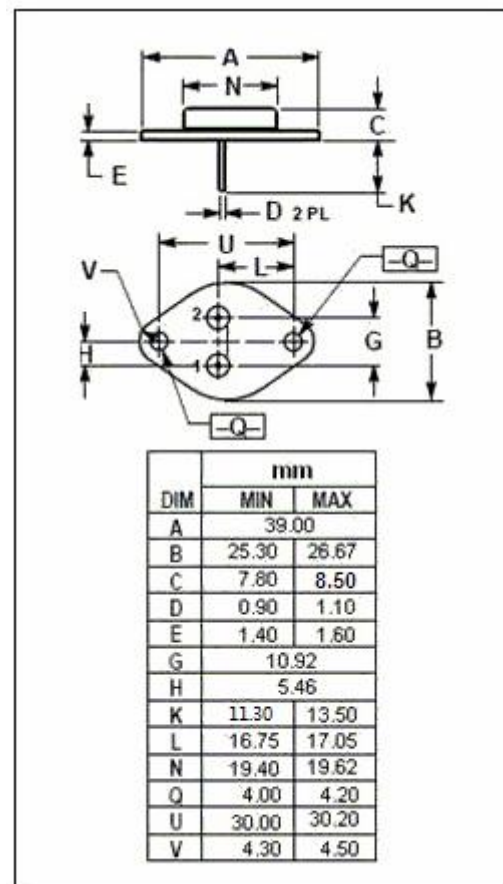
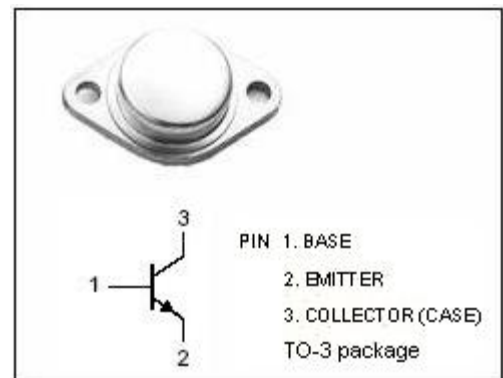
- Switching regulators
- Inverters
- Solenoid and relay drivers
- Motor controls
- Deflection circuits

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector- Base Voltage	850	V
$V_{CEO(SUS)}$	Collector-Emitter Voltage	450	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current-Continuous	5	A
I_{CM}	Collector Current-Peak	10	A
I_B	Base Current-Continuous	4	A
I_{BM}	Base Current-Peak	6	A
P_C	Collector Power Dissipation@ $T_c=25^\circ\text{C}$	125	W
T_J	Junction Temperature	-65~200	°C
T_{stg}	Storage Temperature	-65~200	°C

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance,Junction to Case	1.4	°C/W



isc Silicon NPN Power Transistor**MJ16002****ELECTRICAL CHARACTERISTICS****T_C=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEO(SUS)} *	Collector-Emitter Sustaining Voltage	I _C =100mA ; I _B =0	450			V
V _{CE(sat)} -1	Collector-Emitter Saturation Voltage	I _C = 1.5A; I _B = 0.2A			1.0	V
V _{CE(sat)} -2	Collector-Emitter Saturation Voltage	I _C = 3A; I _B = 0.4A			2.5	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 3A; I _B = 0.4A			2.5	V
I _{EBO}	Emitter Cutoff Current	V _{EB} = 6V; I _C =0			1.0	mA
h _{FE}	DC Current Gain	I _C = 5A ; V _{CE} = 5V	5			
C _{OB}	Output Capacitance	I _E = 0; V _{CB} = 10V; f _{test} =1.0kHz		250		pF

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

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