

isc Silicon NPN Power Transistor**MJ16010****DESCRIPTION**

- Collector-Emitter Sustaining Voltage-
: $V_{CEO(SUS)} = 450V(\text{Min})$
- High Switching Speed
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

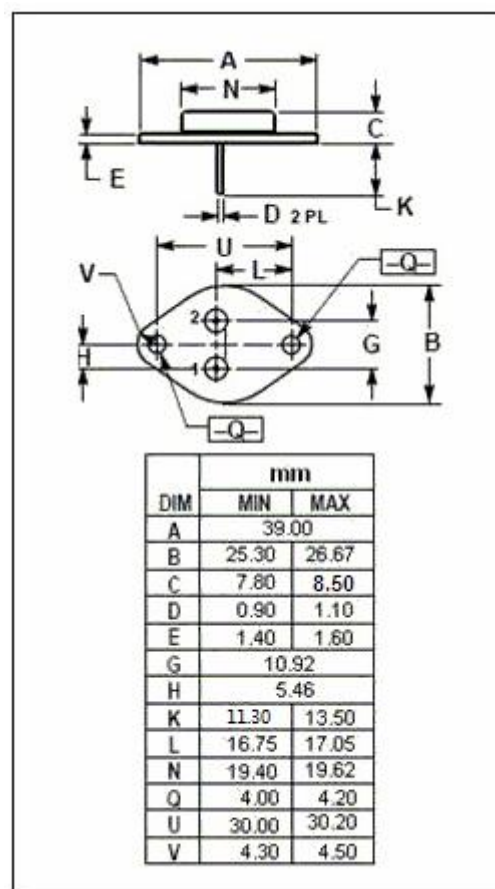
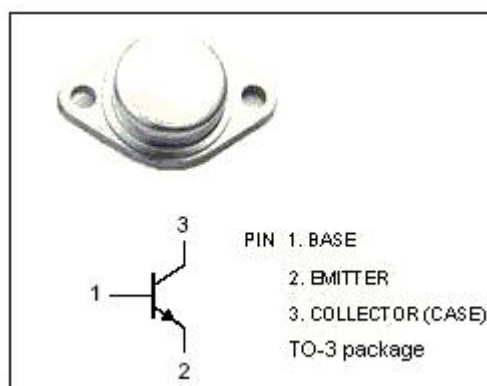
Designed for high-voltage, high-speed, power switching in inductive circuits where fall time is critical. It is particularly suited for line-operated switchmode applications such as: switching regulators, inverters, solenoids, relay drivers, motor controls and deflection circuits and etc.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector- Base Voltage	850	V
V_{CEO}	Collector-Emitter Voltage	450	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current-Continuous	15	A
I_{CM}	Collector Current-peak	20	A
I_B	Base Current-Continuous	10	A
I_{BM}	Base Current-peak	15	A
P_C	Collector Power Dissipation@ $T_c=25^\circ\text{C}$	175	W
T_j	Junction Temperature	200	$^\circ\text{C}$
T_{stg}	Storage Temperature	-65~200	$^\circ\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	VALUE	UNIT
$R_{th\ j-c}$	Thermal Rresistance, Junction to Case	1.0	$^\circ\text{C/W}$



isc Silicon NPN Power Transistor**MJ16010****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 = 50mA ; I _B = 0	450			V
V _{CE(sat)} -1	Collector-Emitter Saturation Voltage	I _C = 5A; I _B = 0.7A			2.5	V
V _{CE(sat)} -2	Collector-Emitter Saturation Voltage	I _C = 10A ; I _B = 1.3A I _C = 10A ; I _B = 1.3A ; T _C = 100°C			3.0 3.0	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 10A ; I _B = 1.3A I _C = 10A ; I _B = 1.3A ; T _C = 100°C			1.5 1.5	V
I _{CBO}	Collector Cutoff Current	V _{CB} =850V; I _E =0 V _{CB} =850V; I _E =0; T _C =100°C			0.25 1.5	mA
I _{EBO}	Emitter Cutoff Current	V _{EB} = 6V; I _C = 0			1.0	mA
h _{FE}	DC Current Gain	I _C = 15A ; V _{CE} = 5V	5			
C _{OB}	Output Capacitance	V _{CB} = 10V, I _E = 0; f _{test} = 1.0kHz			400	pF

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