

isc Silicon NPN Power Transistor

MJ16110

DESCRIPTION

Collector-Emitter Sustaining Voltage-

$V_{CEO(SUS)} = 400V(\text{Min})$

- High Switching Speed
- Wide Area of Safe Operation
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

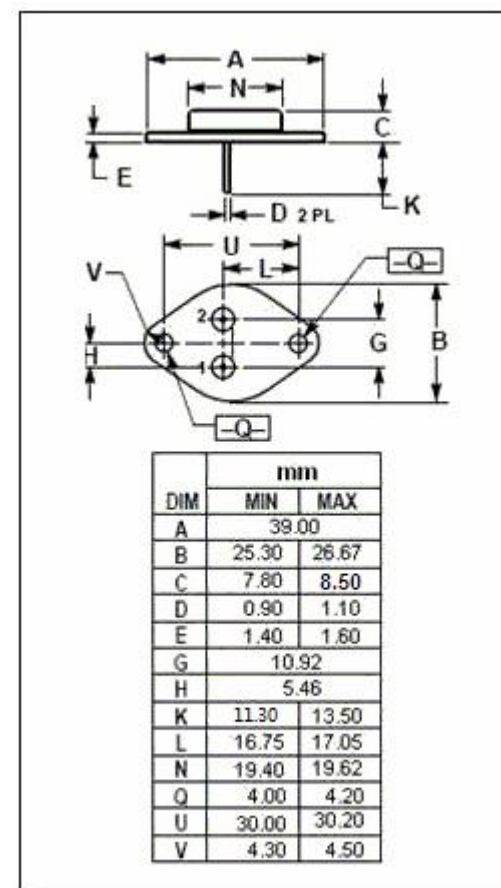
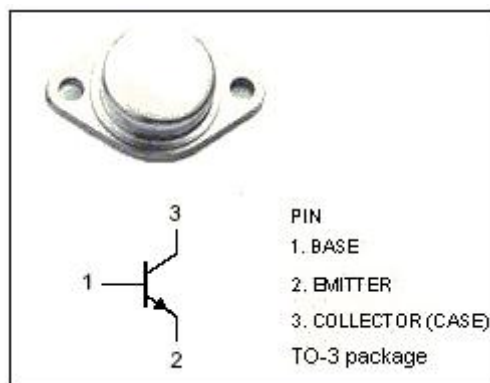
- Designed for use in half bridge and full bridge off line converters.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CES}	Collector-Emitter Voltage	650	V
V_{CEO}	Collector-Emitter Voltage	400	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current-Continuous	15	A
I_{CM}	Collector Current-Pulsed	20	A
I_B	Base Current-Continuous	10	A
I_{BM}	Base Current-Pulsed	15	A
P_D	Total Power Dissipation	$T_C=25^\circ\text{C}$ 175 $T_C=100^\circ\text{C}$ 100	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_{thj-c}	ThermalResistance Junction To Case	0.92	$^\circ\text{C/W}$



isc Silicon NPN Power Transistor**MJ16110****ELECTRICAL CHARACTERISTICS****T_j=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEO(SUS)}	Collector-Emitter Sustaining Voltage	I _C = 20mA; I _B =0	400			V
V _{CE(sat)-1}	Collector-Emitter Saturation Voltage	I _C =5A ; I _B =0.5A			0.9	V
V _{CE(sat)-2}	Collector-Emitter Saturation Voltage	I _C = 10A ; I _B = 1.2A			2.0	V
V _{CE(sat)-3}	Collector-Emitter Saturation Voltage	I _C = 10A ; I _B = 2A I _C = 10A ; I _B = 2A; T _C =100°C			1.0 1.5	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 10A ; I _B = 2A I _C = 10A ; I _B = 2A; T _C =100°C			1.5 1.5	V
I _{CBO}	Collector Cutoff Current	V _{CE} =650V, I _E =0; V _{CE} =650V, I _E =0; T _C =100°C			0.1 1.0	mA
I _{EBO}	Emitter Cutoff Current	V _{EB} = 6V; I _C =0			10	μ A
h _{FE}	DC Current Gain	I _C = 15A; V _{CE} =5V	6		20	

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