

isc Silicon NPN Power Transistor**MJH16010****DESCRIPTION**

- Collector-Emitter Voltage-
: $V_{CEO(SUS)} = 450V(\text{Min})$
- Low $V_{CE(sat)} @ I_C = 10A$
- Fast switching speed
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

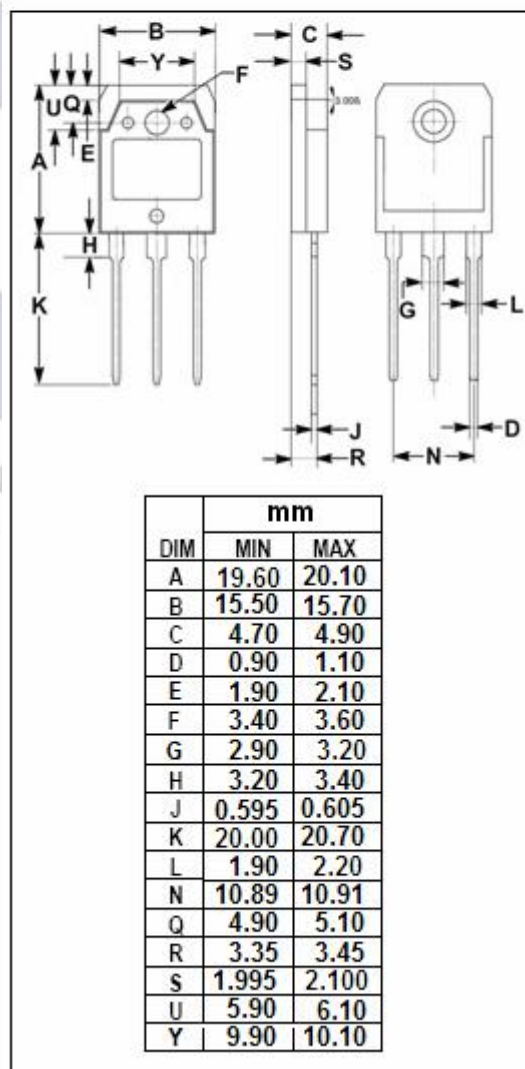
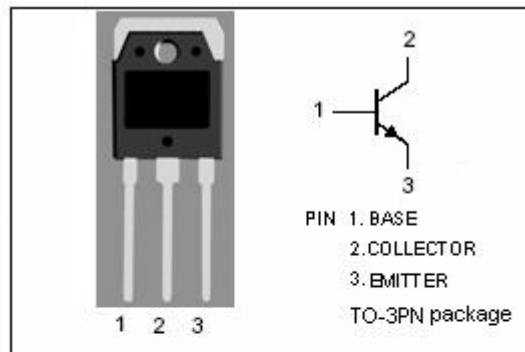
- Switching regulators
- High voltage inverters
- Off - line power supplies

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CEV}	Collector-Emitter Voltage	850	V
$V_{CEO(SUS)}$	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	-55~150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^\circ\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{(th)j-c}$	Thermal Resistance, Junction to Case	1.00	$^\circ\text{C/W}$



isc Silicon NPN Power Transistor**MJH16010****ELECTRICAL CHARACTERISTICS⁽¹⁾****T_j=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 = 5A ;I _B = 0.7A			2.5	V
V _{CE(sat)} -2	Collector-Emitter Saturation Voltage	I _C = 10A ;I _B = 1.3A ;			3.0	V
V _{CE(sat)} -3	Collector-Emitter Saturation Voltage	I _C = 10A ;I _B = 1.3A ;T _C =100°C			3.0	V
V _{BE(sat)} -1	Base-Emitter Saturation Voltage	I _C =10A ;I _B = 1.3A ;			1.5	V
V _{BE(sat)} -2	Base-Emitter Saturation Voltage	I _C =10A ;I _B = 1.3A ;T _C =100°C			1.5	V
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	I _E = 0; f= 1kHz ; V _{CB} = 10V	400			pF

(1)Pulse test:Pulse width=300us,Duty cycle≤20%