

isc Silicon PNP Power Transistors

MJ15025

DESCRIPTION

- Complement to Type NPN MJ15024
- Excellent Safe Operating Area
- High DC current Gain
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for high power audio, disk head positioners and other linear applications

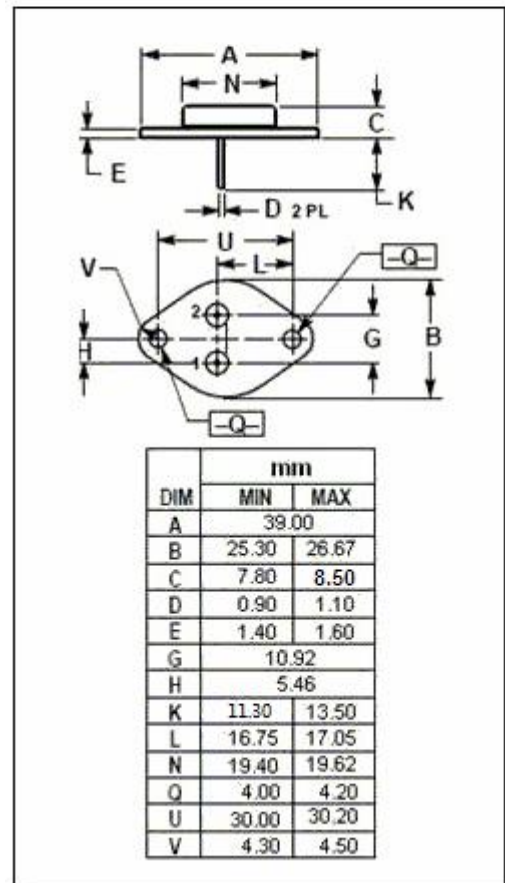
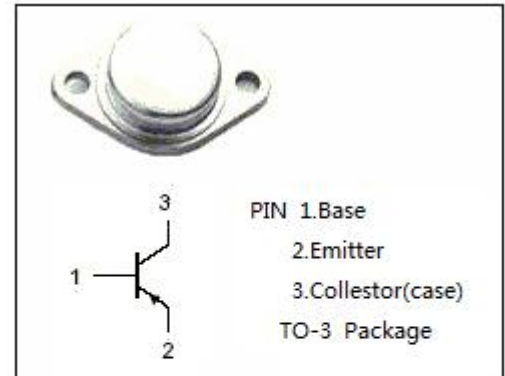
ABSOLUTE MAXIMUM RATINGS($T_c=25^{\circ}\text{C}$)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	-400	V
V_{CEO}	Collector-Emitter Voltage	-250	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current-Continuous	-16	A
I_{CM}	Collector Current-Peak	-30	A
I_B	Base Current-Continuous	-5	A
P_D	Total Power Dissipation @ $T_c=25^{\circ}\text{C}$	250	W
T_j	Junction Temperature	-65~200	$^{\circ}\text{C}$
T_{stg}	Storage Temperature	-65~200	$^{\circ}\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	0.70	$^{\circ}\text{C}/\text{W}$

(1) Pulse Test: Pulse Width = 5 ms, Duty Cycle _ 10%.



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ELECTRICAL CHARACTERISTICS

T_c=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
V _{CEQ(SUS)} (1)	Collector-Emitter Sustaining Voltage	I _C = -50mA ; I _B = 0	-250		V
V _{CE(sat)-1}	Collector-Emitter Saturation Voltage	I _C = -8A; I _B = -0.8A		-1.4	V
V _{CE(sat)-2}	Collector-Emitter Saturation Voltage	I _C = -16A; I _B = -3.2A		-4.0	V
V _{BE(on)}	Base-Emitter On Voltage	I _C = -8A ; V _{CE} = -4V		-2.2	V
I _{CEO}	Collector Cutoff Current	V _{CE} = -200V; I _B = 0		-0.5	mA
I _{CBO}	Collector Cutoff Current	V _{CB} = -250V; I _E = 0		-0.25	mA
I _{EBO}	Emitter Cutoff Current	V _{EB} = -5V; I _C =0		-0.5	mA
h _{FE-1}	DC Current Gain	I _C = -8A ; V _{CE} = -4V	15	60	
h _{FE-2}	DC Current Gain	I _C = -16A ; V _{CE} = -4V	5		
I _{s/b}	Second Breakdown Collector Current With Base Forward Biased	V _{CE} = -50Vdc, t=0.5 s, Nonrepetitive V _{CE} = -80Vdc, t=0.5 s, Nonrepetitive	-5.0 -2.0		A
C _{OB}	Output Capacitance	I _E = 0 ; V _{CB} = 10V; f _{test} = 1.0MHz	300		pF
f _T	Current-Gain—Bandwidth Product	I _C = -1A ; V _{CE} = -10V; f _{test} = 1.0MHz	4		MHz

(1) Pulse Test: Pulse Width = 5 ms, Duty Cycle _ 10%.

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