

isc Silicon PNP Power Transistor

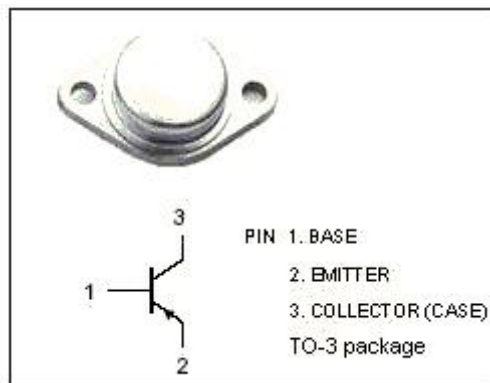
MJ15004

DESCRIPTION

- High DC Current Gain-
: $h_{FE} = 25(\text{Min}) @ I_C = -5A$
- Wide Area of Safe Operation
- Complement to Type MJ15003
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- For high power audio, disk head positioners and other linear applications.

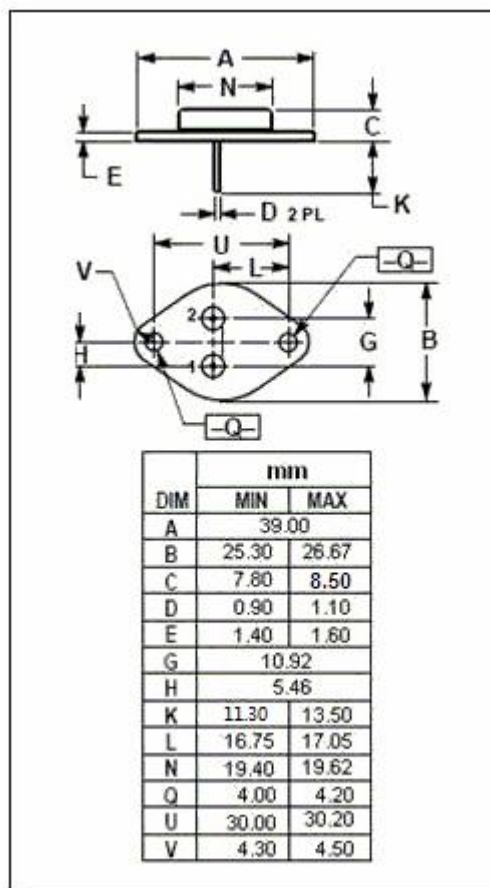


ABSOLUTE MAXIMUM RATINGS($T_a=25^{\circ}\text{C}$)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	-140	V
V_{CEO}	Collector-Emitter Voltage	-140	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current-Continuous	-20	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	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	0.7	$^{\circ}\text{C/W}$



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ELECTRICAL CHARACTERISTICS

T_C=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
V _{CEO(SUS)}	Collector-Emitter Sustaining Voltage	I _C = -50mA ; I _B = 0	-140		V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = -5A; I _B = -0.5A		-1	V
V _{BE(on)}	Base-Emitter On Voltage	I _C = -5A ; V _{CE} = -2V		-2	V
I _{CEO}	Collector Cutoff Current	V _{CE} = -140V; I _B = 0		-0.25	mA
I _{CBO}	Collector Cutoff Current	V _{CB} = -140V; I _E = 0 V _{CB} = -140V; I _E = 0; T _C = 150°C		-0.1 -2.0	mA
I _{EBO}	Emitter Cutoff Current	V _{EB} = -5V; I _C = 0		-0.1	mA
h _{FE}	DC Current Gain	I _C = -5A ; V _{CE} = -2V	25	150	
I _{s/b}	Second Breakdown Collector Current with Base Forward Biased	V _{CE} = -100Vdc, t= 1s, Nonrepetitive	-1		A
C _{OB}	Output Capacitance	I _E = 0 ; V _{CB} = -10V; f _{test} = 0.5MHz		1000	pF
f _T	Current-Gain—Bandwidth Product	I _C = -0.5A ; V _{CE} = -10V; f _{test} = 0.5MHz	2		MHz

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