

The MJ15003 and MJ15004 are power transistors designed for high power audio, disk head positioners and other linear applications.

Features

High Safe Operating Area
For Low Distortion Complementary Designs
High DC Current Gain

These Devices are Pb-Free and are RoHS Compliant*

MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Collector-Emitter Voltage	V _{CEO}	140	Vdc
Collector-Base Voltage	V _{CBO}	140	Vdc
Emitter-Base Voltage	V _{EBO}	5	Vdc
Collector Current - Continuous	I _C	20	Adc
Base Current - Continuous	I _B	5	Adc
Emitter Current – Continuous	ΙE	25	Adc
Total Power Dissipation @ T _C = 25 C Derate above 25 C	P _D	250 1.43	W W/ C
Operating and Storage Junction Temperature Range	T _J , T _{stg}	-65 to +200	С

Stresses exceeding Maximum Ratings may damage the device. Maximum Ratings are stress ratings only. Functional operation above the Recommended Operating Conditions is not implied. Extended exposure to stresses above the Recommended Operating Conditions may affect device reliability.

THERMAL CHARACTERISTICS

Characteristic	Symbol	Max	Unit
Thermal Resistance, Junction-to-Case	$R_{\theta JC}$	0.70	C/W
Maximum Lead Temperature for Soldering Purposes 1/16 from Case for ≤ 10 secs	T _L	265	С

^{*}For additional information on our Pb-Free strategy and soldering details, please download 71 TwpT6 Tc(addit3l)TEndedTf13.60 0 6.51.5ress

MJ15003 (NPN), MJ15004 (PNP)

ELECTRICAL CHARACTERISTICS ($T_C = 25$ C unless otherwise noted)

Characteristic	Symbol	Min	Max	Unit
OFF CHARACTERISTICS				
Collector Emitter Sustaining Voltage (Note 1) (I _C = 200 mAdc, I _B = 0)	V _{CEO(sus)}	140	_	

MJ15003 (NPN), MJ15004 (PNP)

TYPICAL CHARACTERISTICS MJ15003G (NPN)

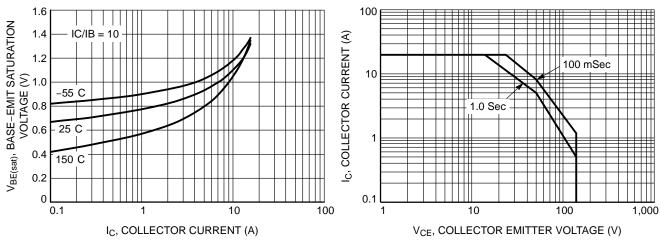


Figure 3. Base Emitter Saturation Voltage

Figure 4. Safe Operating Area

TYPICAL CHARACTERISTICS MJ15004G (PNP)

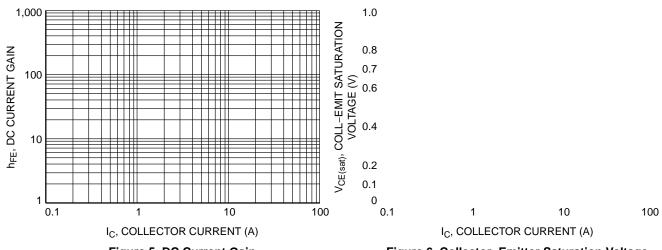


Figure 5. DC Current Gain

Figure 6. Collector Emitter Saturation Voltage

