

MJE700/701/702/703

Monolithic Construction With Built-in Base-Emitter Resistors

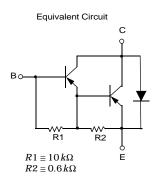
- High DC Current Gain : $h_{\mbox{\scriptsize FE}}\mbox{=}\mbox{\sc 750}$ (Min.) @ $I_{\mbox{\scriptsize C}}\mbox{\scriptsize =}\mbox{\sc -1.5}$ and -2.0A DC
- Complement to MJE800/801/802/803



PNP Epitaxial Silicon Darlington Transistor

Absolute Maximum Ratings T_C=25°C unless otherwise noted

Sym- bol	Parameter	Value	Unit s
V_{CBO}	Collector- Base Voltage : MJE700/701	- 60	V
	: MJE702/703	- 80	V
V _{CEO}	Collector-Emitter Voltage: MJE700/701	- 60	V
	: MJE702/703	- 80	V
V _{EBO}	Emitter- Base Voltage	- 5	V
I _C	Collector Current	- 4	Α
I _B	Base Current	- 0.1	Α
P _C	Collector Dissipation (T _C =25°C)	40	W
TJ	Junction Temperature	150	°C
T _{STG}	Storage Temperature	- 55 ~ 150	°C



Electrical Characteristics $\rm T_{C}{=}25^{\circ}C$ unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Max.	Units
BV _{CEO}	Collector-Emitter Breakdown Voltage : MJE700/701 : MJE702/703	I _C = - 10mA, I _B = 0	-60 -80		V V
I _{CEO}	Collector Cut-off Current : MJE700/701 : MJE702/703	$V_{CE} = -60V, I_{B} = 0$ $V_{CE} = -80V, I_{B} = 0$		-100 -100	μΑ μΑ
I _{CBO}	Collector Cut-off Current	V_{CB} = Rated BV _{CEO} , I_E = 0 V_{CB} = Rated BV _{CEO} , I_E = 0 T_C = 100°C		-100 -500	μA μA
I _{EBO}	Emitter Cut-off Current	$V_{BE} = -5V, I_{C} = 0$		-2	mA
h _{FE}	DC Current Gain : MJE700/702 : MJE701/703 : ALL DEVICES	$V_{CE} = -3V$, $I_{C} = -1.5A$ $V_{CE} = -3V$, $I_{C} = -2A$ $V_{CE} = -3V$, $I_{C} = -4A$	750 750 100		
V _{CE} (sat)	Collector-Emitter Saturation Voltage : MJE700/702 : MJE701/703 : ALL DEVICES	I _C = - 1.5A, I _B = - 30mA I _C = - 2A, I _B = - 40mA I _C = - 4A, I _B = - 40mA	100	-2.5 -2.8 -3	V V V
V _{BE} (on)	Base-Emitter On Voltage : MJE700/702 : MJE701/703 : ALL DEVICES	$V_{CE} = -3V$, $I_{C} = -1.5A$ $V_{CE} = -3V$, $I_{C} = -2A$ $V_{CE} = -3V$, $I_{C} = -4A$		-1.2 -2.5 -3	V V V

Typical Characteristics

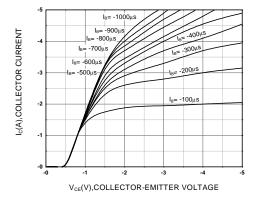


Figure 1. Static Characteristic

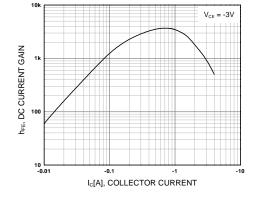


Figure 2. DC current Gain

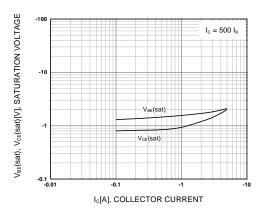


Figure 3. Collector-Emitter Saturation Voltage Base-Emitter Saturation Voltage

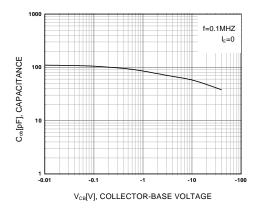


Figure 4. Collector Output Capacitance

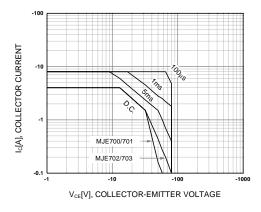


Figure 5. Safe Operating Area

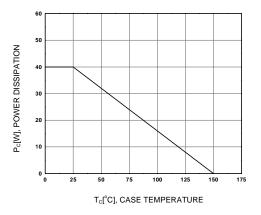
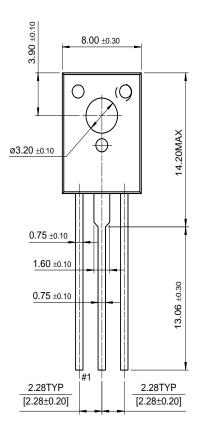


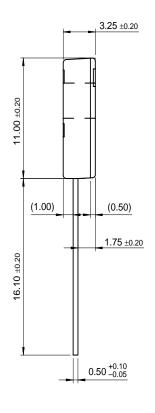
Figure 6. Power Derating

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Package Demensions

TO-126







Dimensions in Millimeters

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