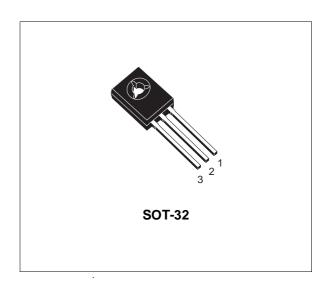


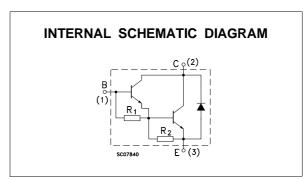
SILICON NPN POWER DARLINGTON TRANSISTORS

SGS-THOMSON PREFERRED SALESTYPES

DESCRIPTION

The MJE802 and MJE803 are silicon epitaxial-base NPN transistors in monolithic Darlington configuration and are mounted in Jedec SOT-32 plastic package. They are intended for use in medium power linear and switching applications.





ABSOLUTE MAXIMUM RATINGS

Symbol	Parameter	Value	Unit
V _{CBO}	Collector-Base Voltage (IE = 0)	80	V
V _{CEO}	Collector-Emitter Voltage (I _B = 0)	80	V
V _{EBO}	Base-Emitter Voltage (IC = 0)	5	V
Ic	Collector Current	4	Α
lΒ	Base Current	0.1	Α
P _{tot}	Total Power Dissipation at T _{case} ≤ 25 °C	40	W
T_{stg}	Storage Temperature	-65 to 150	°C
Tj	Max Operating Junction Temperature	150	°C

For PNP types voltage and current values are negative.

January 1997 1/4

THERMAL DATA

R _{thj-amb} Thermal R	esistance Junction-ambient	Max	3.13	°C/W	ì
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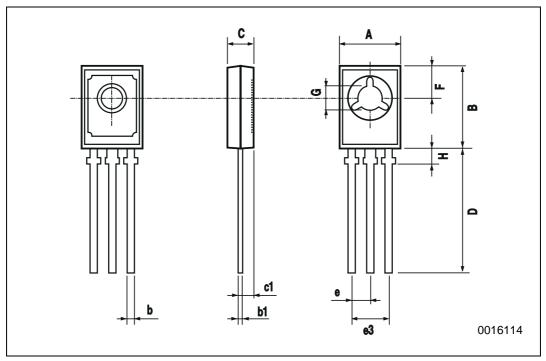
ELECTRICAL CHARACTERISTICS (T_{case} = 25 °C unless otherwise specified)

Symbol	Parameter	Test Conditions		Min.	Тур.	Max.	Unit
Ісво	Collector Cut-off Current (I _E = 0)	V_{CB} = rated V_{CBO} V_{CB} = rated V_{CBO} T_{case} = 100 °C				100 500	μA μA
I _{CEO}	Collector Cut-off Current (I _B = 0)	V _{CE} = rated V _{CEO}				100	μΑ
I _{EBO}	Emitter Cut-off Current (I _C = 0)	V _{EB} = 5 V				2	mA
V _{CEO(sus)} *	Collector-Emitter Sustaining Voltage (I _B = 0)	I _C = 50 mA		80			V
V _{CE(sat)*}	Collector-Emitter Sustaining Voltage	~	$I_B = 40 \text{ mA}$ $I_B = 30 \text{ mA}$			3 2.5	V V
V _{BE} *	Base-Emitter Voltage	=	V _{CE} = 3 V V _{CE} = 3 V			3 2.5	< <
h _{FE} *	DC Current Gain		V _{CE} = 3 V V _{CE} = 3 V	100 750			
h _{fe}	Small Signal Current Gain	I _C = 1.5 A f = 1 MHz	V _{CE} = 3 V	1			

^{*} Pulsed: Pulse duration = 300µs, duty cycle ≤ 1.5%

SOT-32 MECHANICAL DATA

DIM.	mm			inch		
	MIN.	TYP.	MAX.	MIN.	TYP.	MAX.
А	7.4		7.8	0.291		0.307
В	10.5		10.8	0.413		0.445
b	0.7		0.9	0.028		0.035
b1	0.49		0.75	0.019		0.030
С	2.4		2.7	0.04		0.106
c1		1.2			0.047	
D		15.7			0.618	
е		2.2			0.087	
e3		4.4			0.173	
F		3.8			0.150	
G	3		3.2	0.118		0.126
Н			2.54			0.100



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