

COMPLEMETARY SILICON POWER TRANSISTORS

- SGS-THOMSON PREFERRED SALESTYPES
- COMPLEMENTARY PNP NPN DEVICES

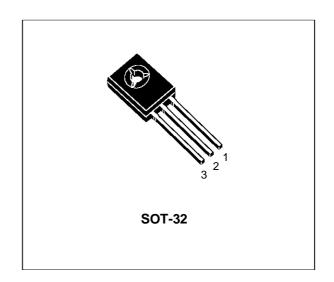
APPLICATIONS

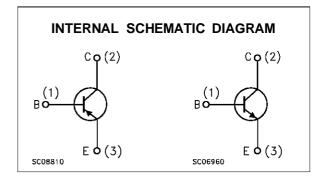
 LINEAR AND SWITCHING INDUSTRIAL EQUIPMENT

DESCRIPTION

The MJE340 is a silicon epitaxial planar NPN transistor intended for use in medium power linear and switching applications. It is mounted in SOT-32.

The complementary PNP type is MJE350.





ABSOLUTE MAXIMUM RATINGS

Symbol	Parameter		Value	Unit	
		NPN	MJE340	Unit	
		PNP	MJE350	Unit	
V _{CEO}	Collector-Emitter Voltage (I _B = 0)		300	V	
V_{EBO}	Emitter-Base Voltage (IC = 0)		3	V	
Ic	Collector Current		0.5	Α	
P _{tot}	Total Power Dissipation at T _{case} ≤ 25 °C		20.8	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.

June 1997 1/5

THERMAL DATA

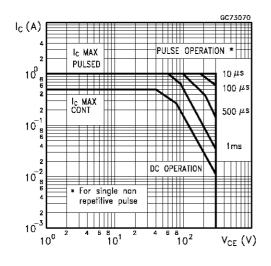
R _{thj-case}	Thermal Resistance Junction-case	Max	6.0	°C/W	
-----------------------	----------------------------------	-----	-----	------	--

ELECTRICAL CHARACTERISTICS (T_{case} = 25 °C unless otherwise specified)

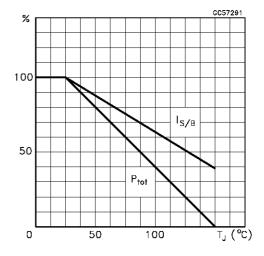
Symbol	Parameter	Test Conditions	N	Min.	Тур.	Max.	Unit
I _{CBO}	Collector Cut-off Current (I _E = 0)	V _{CB} = 300 V				100	μΑ
I _{EBO}	Emitter Cut-off Current (I _C = 0)	V _{EB} = 3 V				100	μΑ
V _{CEO(sus)*}	Collector-Emitter Sustaining Voltage (I _B = 0)	I _C = 1 mA	;	300			V
h _{FE}	DC Current Gain	$I_C = 50 \text{ mA}$ V_{CE}	= 10 V	30		240	

^{*} Pulsed: Pulse duration = 300μs, duty cycle ≤ 2%

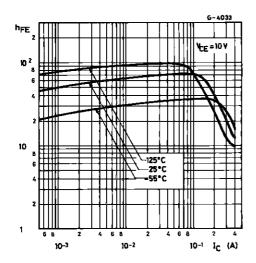
Safe Operating Area



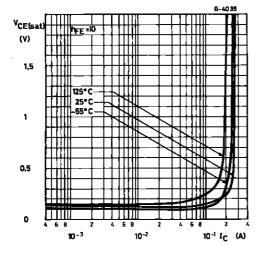
Derating Curve



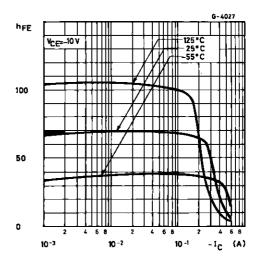
DC Current Gain (NPN type)



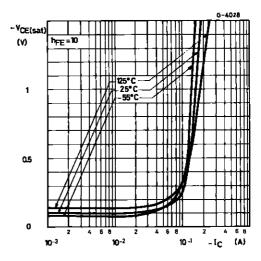
Collector Emitter Saturation Voltage (NPN type)



DC Current Gain (PNP type)

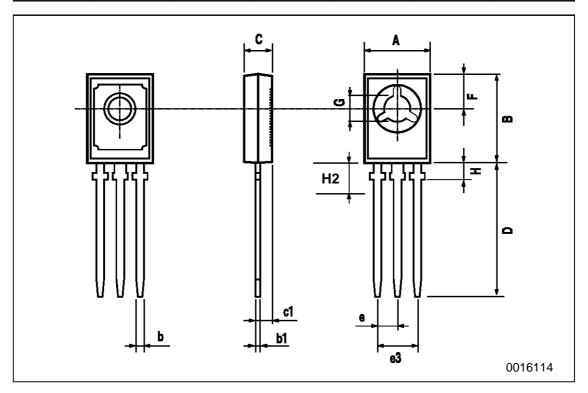


Collector Emitter Saturation Voltage (PNP type)



SOT-32 (TO-126) MECHANICAL DATA

DIM.	mm			inch			
Diwi.	MIN.	TYP.	MAX.	MIN.	TYP.	MAX.	
Α	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	0.040		0.106	
c1	1.0		1.3	0.039		0.050	
D	15.4		16.0	0.606		0.629	
е		2.2			0.087		
e3	4.15		4.65	0.163		0.183	
F		3.8			0.150		
G	3		3.2	0.118		0.126	
Н			2.54			0.100	
H2		2.15			0.084		





Information furnished is believed to be accurate and reliable. However, SGS-THOMSON Microelectronics assumes no responsability for the consequences of use of such information nor for any infringement of patents or other rights of third parties which may results from its use. No license is granted by implication or otherwise under any patent or patent rights of SGS-THOMSON Microelectronics. Specifications mentioned in this publication are subject to change without notice. This publication supersedes and replaces all information previously supplied. SGS-THOMSON Microelectronics products are not authorized for use as critical components in life support devices or systems without express written approval of SGS-THOMSON Microelectonics.

© 1997 SGS-THOMSON Microelectronics - Printed in Italy - All Rights Reserved

SGS-THOMSON Microelectronics GROUP OF COMPANIES

Australia - Brazil - Canada - China - France - Germany - Hong Kong - Italy - Japan - Korea - Malaysia - Malta - Morocco - The Netherlands - Singapore - Spain - Sweden - Switzerland - Taiwan - Thailand - United Kingdom - U.S.A

