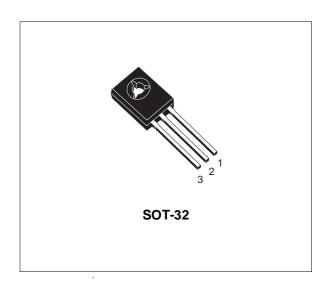


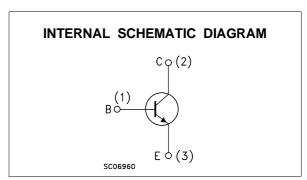
SILICON NPN TRANSISTOR

 STMicroelectronics PREFERRED SALESTYPE

DESCRIPTION

The MJE521 is a silicon Epitaxial-Base NPN transistor in Jedec SOT-32 plastic package. It is intended for use in 5 to 20W audio amplifiers, general purpose amplifier and switching circuits.





ABSOLUTE MAXIMUM RATINGS

Symbol	Parameter	Value	Unit
V _{CBO}	Collector-Base Voltage (I _E = 0)	40	V
V _{CEO}	Collector-Emitter Voltage (I _B = 0)	40	V
V _{EBO}	Emitter-Base Voltage (I _C = 0)	4	V
Ic	Collector Current	4	А
Ісм	Collector Peak Current (t _p < 5 ms)	8	А
Ι _Β	Base Current	2	А
P _{tot}	Total Dissipation at Tc ≤ 25 °C	40	W
T _{stg}	Storage Temperature	-65 to 150	°C
Tj	Max. Operating Junction Temperature	150	°C

September 2003

THERMAL DATA

R _{thj-amb} Thermal Resistance Junction-ambient	Max	3.12	°C/W	
--	-----	------	------	--

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

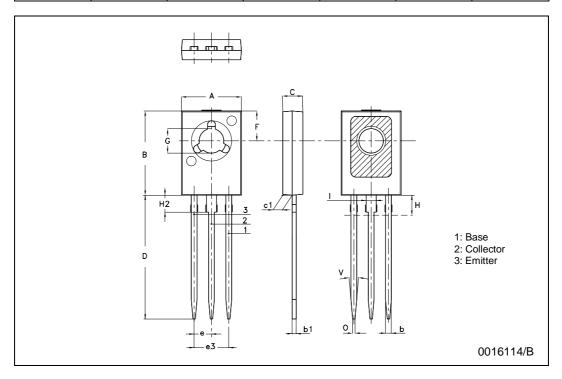
Symbol	Parameter	Test Conditions	Min.	Тур.	Max.	Unit
I _{CBO}	Collector Cut-off Current (I _E = 0)	V _{CB} = 40 V			100	μА
I _{EBO}	Emitter Cut-off Current (I _C = 0)	V _{EB} = 4 V			100	μА
V _{CEO(sus)} *	Collector-Emitter Sustaining Voltage (I _B = 0)	I _C = 0.1 A	40			V
h _{FE}	DC Current Gain	I _C = 1 A	40			

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

2/4

SOT-32 (TO-126) MECHANICAL DATA

DIM.	mm		inch			
DIIVI.	MIN.	TYP.	MAX.	MIN.	TYP.	MAX.
А	7.4		7.8	0.291		0.307
В	10.5		10.8	0.413		0.425
b	0.7		0.9	0.028		0.035
b1	0.40		0.65	0.015		0.025
С	2.4		2.7	0.094		0.106
c1	1.0		1.3	0.039		0.051
D	15.4		16.0	0.606		0.630
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
H2		2.15			0.084	
I		1.27			0.05	
0		0.3			0.011	
V		10°			10°	



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

The ST logo is a trademark of STMicroelectronics.

All other names are the property of their respective owners.

© 2003 STMicroelectronics – All Rights reserved STMicroelectronics GROUP OF COMPANIES

Australia - Belgium - Brazil - Canada - China - Czech Republic - Finland - France - Germany - Hong Kong - India - Israel - Italy - Japan - Malaysia - Malta - Morocco - Singapore - Spain - Sweden - Switzerland - United Kingdom - United States.

http://www.st.com

4/4