

SILICON TRANSISTOR 2SA1385-Z

PNP SILICON EPITAXIAL TRANSISTOR MP-3

DESCRIPTION

2SA1385-Z is designed for Audio Frequency Amplifier and Switching, especially in Hybrid Integrated Circuits.

FEATURES

- Low Vce(sat): Vce(sat) = −0.18 V TYP.
- Complement to 2SC3518-Z

QUALITY GRADE

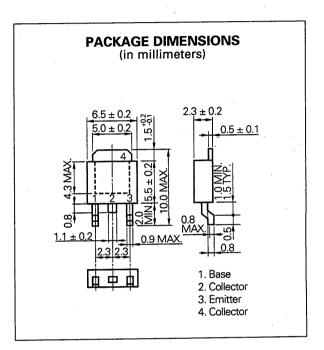
Standard

Please refer to "Quality grade on NEC Semiconductor Devices" (Document number IEI-1209) published by NEC Corporation to know the specification of quality grade on the devices and its recommended applications.

ABSOLUTE MAXIMUM RATINGS (Ta = 25 °C)

Collector to Base Voltage	Vсво	-60	٧
Collector to Emitter Voltage	VCEO	-60	٧
Emitter to Base Voltage	VEBO	-7	٧
Collector Current (DC)	lc	 5	Α
Collector Current (Pulse)*	lc	-7	Α
Total Power Dissipation (Tc = 25 °C)	Рт	10	W
Junction Temperature	Tj	150	°C
Storage Temperature	Tstg	-55 to +150	°C

^{*} PW ≦ 10 ms, Duty Cycle ≦ 50 %





ELECTRICAL CHARACTERISTICS (Ta = 25 °C)

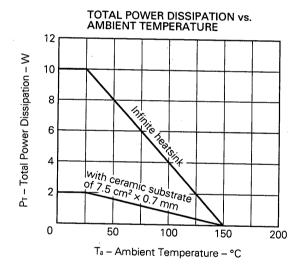
CHARACTERISTIC	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITIONS
Collector Cutoff Current	Ісво			-10	μΑ	VcB = -50 V, IE = 0
Emitter Cutoff Current	Ієво			-10	μΑ	V _{EB} = -7.0 V, I _C = 0
DC Current Gain	hFE1*	100	200	400		Vce = -1.0 V, lc = -2.0 A
DC Current Gain	hfE2*	50	100			Vce = -1.0 V, Ic = -5.0 A
Collector Saturation Voltage	VCE(sat)*		-0.18	-0.3	v	Ic = -2.0 A, IB = -0.2 A
Base Saturation Voltage	V _{BE(sat)} *			-1.2	v	Ic = -2.0 A, Is = -0.2 A
Gain Bandwidth Product	fτ		140		MHz	Vce = -10 V, Ic = -0.5 A
Turn-on Time	ton		0.08	1.0	μs	
Storage Time	tstg		0.55	2.5	μs	Ic = -2.0 A, Vcc = -10 V RL = 50 Ω IB1 = -IB2 = -0.2 A
Fall time	tr		0.18	1.0	μs	

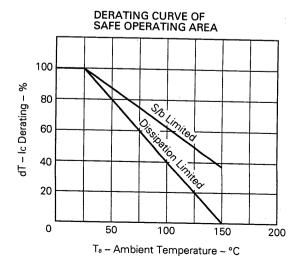
^{*} Pulsed: PW \leq 350 μ s, Duty Cycle \leq 2 %

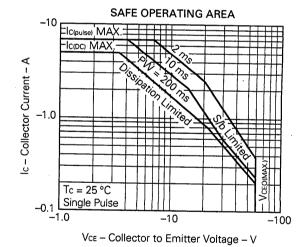
hre Classification

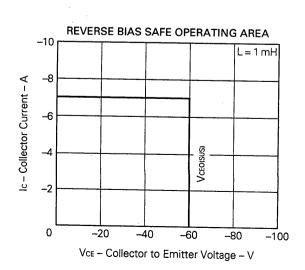
MARKING	М	L .	K
hFE1	100 to 200	160 to 320	200 to 400

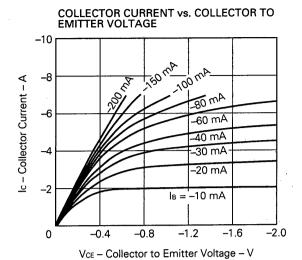
TYPICAL CHARACTERISTICS (Ta = 25 °C)

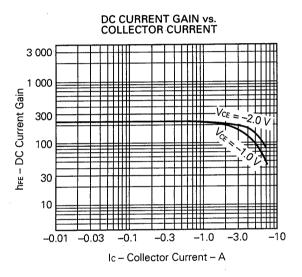


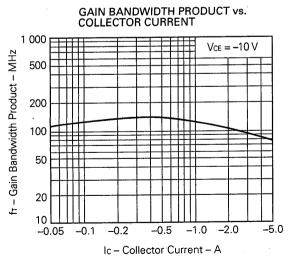


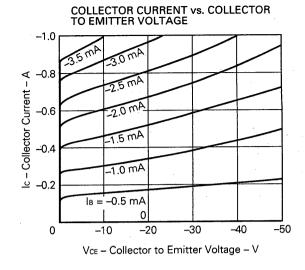


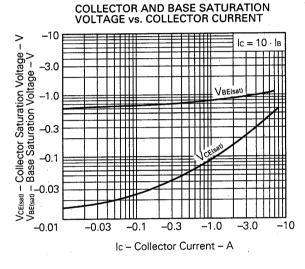


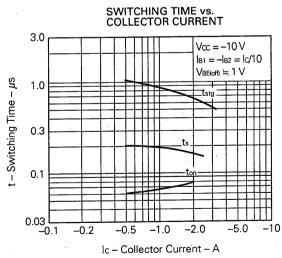












Reference

Application note name	No.
Quality control of NEC semiconductors devices.	TEI-1202
Quality control guide of semiconductors devices.	MEI-1202
Assembly manual of semiconductors devices.	IEI-1207
Design of Push-Pull Type Switching Regulators (Basic).	TEB-1002
Design of Push-Pull Type Switching Regulators (Applications).	TEB-1003
Optimum Base Drive Conditions of Switching Power Transistors.	TEB-1014

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Application examples recommended by NEC Corporation.

Standard: Computer, Office equipment, Communication equipment, Test and Measurement equipment, Machine tools, Industrial robots, Audio and Visual equipment, Other consumer products, etc.

Special: Automotive and Transportation equipment, Traffic control systems, Antidisaster systems, Anticrime systems, etc.

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