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Renesas Electronics website: http://www.renesas.com

April 1st, 2010 Renesas Electronics Corporation

Issued by: Renesas Electronics Corporation (http://www.renesas.com)
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SILICON POWER TRANSISTOR 2SA1385-Z

PNP SILICON EPITAXIAL TRANSISTOR

DESCRIPTION

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

FEATURES

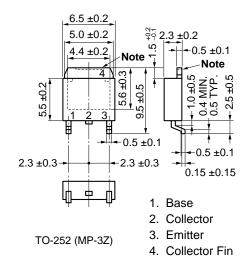
- Low VCE(sat): VCE(sat) = -0.18 V TYP.
- · Complement to 2SC3518-Z

ABSOLUTE MAXIMUM RATINGS (TA = 25°C)

Collector to base voltage	Vсво	-60	V
Collector to emitter voltage	Vceo	-60	V
Base to emitter voltage	VEBO	-7	V
Collector current (DC)	Ic(DC)	-5	Α
Collector current (pulse) Note	Ic(pulse)	-7	Α
Total power dissipation (Tc = 25°C)	Рт	10	W
Junction temperature	T_{j}	150	°C
Storage temperature	T _{stg}	-55 to +150	°C

Note PW \leq 10 ms, Duty Cycle \leq 50%

<R> PACKAGE DRAWING (Unit: mm)



Note The depth of notch at the top of the fin is from 0 to 0.2 mm.

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ELECTRICAL CHARACTERISTICS (Ta = 25 °C)

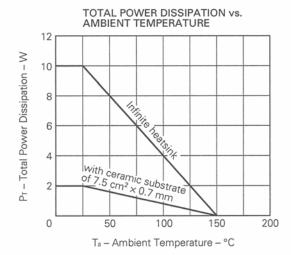
CHARACTERISTIC	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITIONS
Collector Cutoff Current	Ісво			-10	μΑ	Vcb = -50 V, IE = 0
Emitter Cutoff Current	Ієво	3 . 2		-10	μΑ	VEB = -7.0 V, Ic = 0
DC Current Gain	hFE1*	100	200	400		Vce = -1.0 V, Ic = -2.0 A
DC Current Gain	hFE2*	50	100			Vce = -1.0 V, Ic = -5.0 A
Collector 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, IB = -0.2 A
Gain Bandwidth Product	fт		140		MHz	Vce = -10 V, Ic = -0.5 A
Turn-on Time	ton		0.08	1.0	μs	Ic = -2.0 A, Vcc ≒ -10 V
Storage Time	tstg		0.55	2.5	μs	$R_L = 50 \Omega$
Fall time	†f		0.18	1.0	μs	I _{B1} = -I _{B2} = -0.2 A

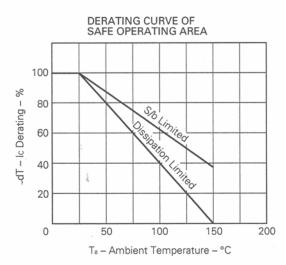
^{*} Pulsed: PW \leq 350 μ s, Duty Cycle \leq 2 %

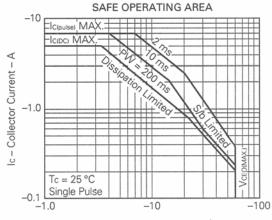
hre Classification

MARKING	ARKING M L		К	
hFE1	100 to 200	160 to 320	200 to 400	

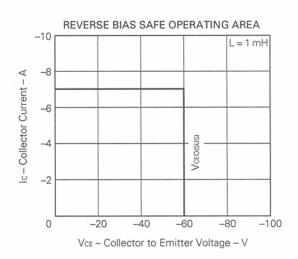
TYPICAL CHARACTERISTICS (Ta = 25 °C)

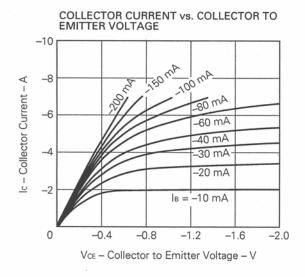


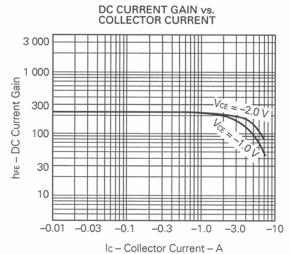


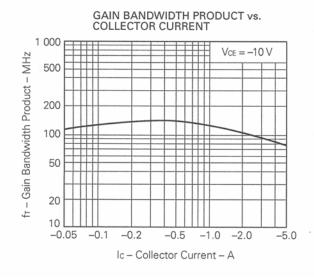


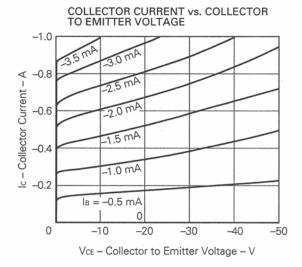
VcE - Collector to Emitter Voltage - V

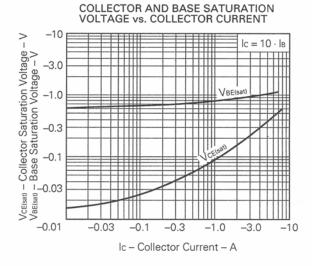


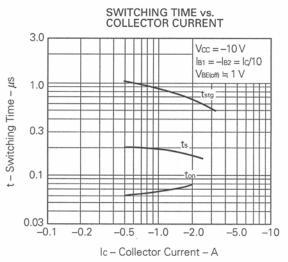












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