2SC1515(K)

Silicon NPN Triple Diffused

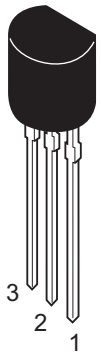
REJ03G0689-0200
(Previous ADE-208-1055)
Rev.2.00
Aug.10.2005

Application

High voltage switching

Outline

RENESAS Package code: PRSS0003DA-A
(Package name: TO-92 (1))



1. Emitter
2. Collector
3. Base

Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Ratings	Unit
Collector to base voltage	V_{CBO}	200	V
Collector to emitter voltage	V_{CES}	200	V
	V_{CEO}	150	V
Emitter to base voltage	V_{EBO}	5	V
Collector current	I_C	50	mA
Collector power dissipation	P_C	200	mW
Junction temperature	Tj	150	°C
Storage temperature	Tstg	–55 to +150	°C

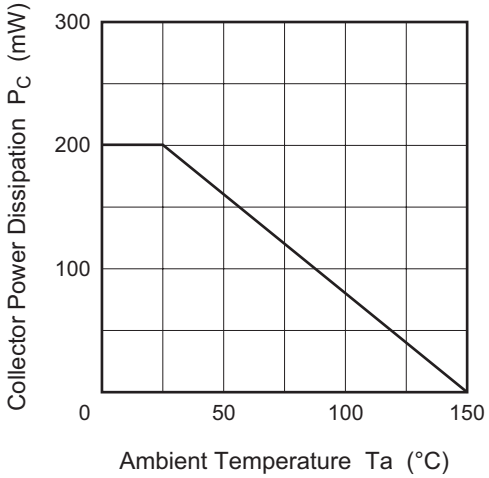
Electrical Characteristics

(Ta = 25°C)

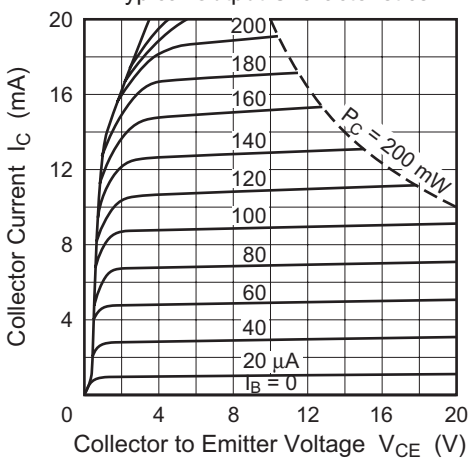
Item	Symbol	Min	Typ	Max	Unit	Test conditions
Collector to emitter breakdown voltage	$V_{(BR)CES}$	200	—	—	V	I_C = 10 µA, R_{BE} = 0
	$V_{(BR)CEO}$	150	—	—	V	I_C = 1 mA, R_{BE} = ∞
Emitter to base breakdown voltage	$V_{(BR)EBO}$	5	—	—	V	I_E = 10 µA, I_C = 0
Collector cutoff current	I_{CBO}	—	—	0.1	µA	V_{CB} = 20 V, I_E = 0
DC current transfer ratio	h_{FE}	30	—	300		V_{CE} = 6 V, I_C = 10 mA
Collector to emitter saturation voltage	$V_{CE(sat)}$	—	—	1.0	V	I_C = 10 mA, I_B = 1 mA
Base to emitter saturation voltage	$V_{BE(sat)}$	—	—	1.5	V	I_C = 10 mA, I_B = 1 mA
Gain bandwidth product	f_T	60	—	—	MHz	V_{CE} = 6 V, I_C = 10 mA
Collector output capacitance	Cob	—	—	10	pF	V_{CB} = 6 V, I_E = 0, f = 1 MHz

Main Characteristics

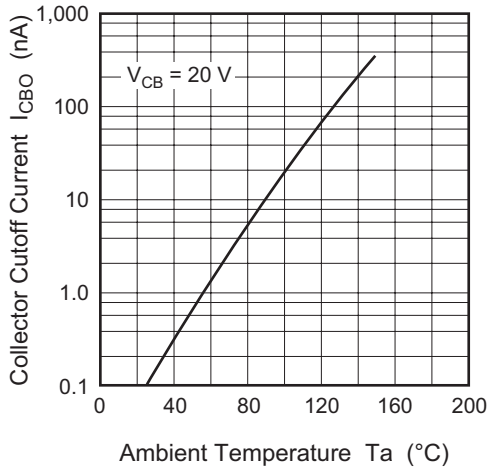
Maximum Collector Dissipation Curve



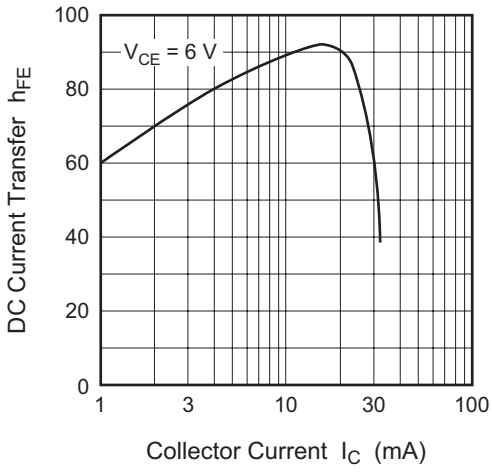
Typical Output Characteristics



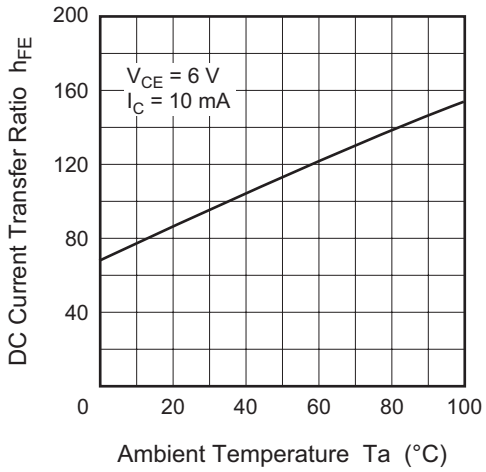
Collector Cutoff Current vs. Ambient Temperature



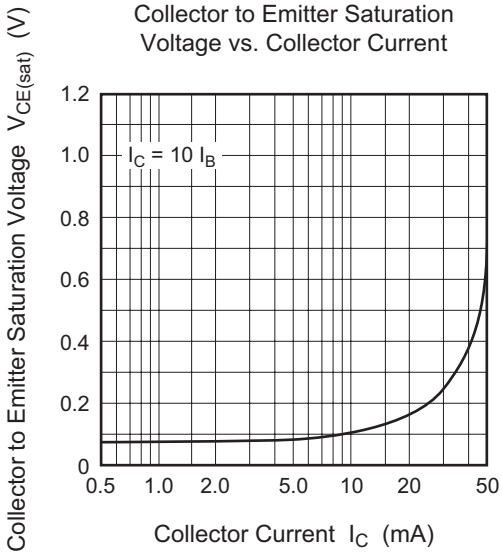
DC Current Transfer Ratio vs. Collector Current



DC Current Transfer Ratio vs. Ambient Temperature



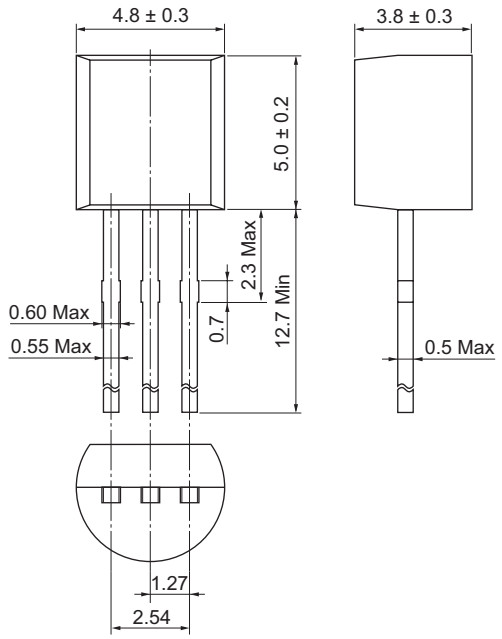
Collector to Emitter Saturation Voltage vs. Collector Current



Package Dimensions

JEITA Package Code	RENESAS Code	Package Name	MASS[Typ.]
SC-43A	PRSS0003DA-A	TO-92(1) / TO-92(1)V	0.25g

Unit: mm



Ordering Information

Part Name	Quantity	Shipping Container
2SC1515KTZ	2500	Hold Box, Radial Taping

Note: For some grades, production may be terminated. Please contact the Renesas sales office to check the state of production before ordering the product.

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RENESAS SALES OFFICES

http://www.renesas.com

Refer to "**http://www.renesas.com/en/network**" for the latest and detailed information.

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Colophon .3.0