

## 2SD974

Silicon NPN Epitaxial

REJ03G0774-0300

Rev.3.00

Oct 06, 2006

### Application

- Power switching
- TV horizontal deflection output

### Outline

RENESAS Package code: PRSS0003DC-A  
(Package name: TO-92 Mod)



1. Emitter
2. Collector
3. Base

### Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Ratings	Unit
Collector to base voltage	$V_{CBO}$	120	V
Collector to emitter voltage	$V_{CEO}$	60	V
Emitter to base voltage	$V_{EBO}$	5	V
Collector current	$I_C$	1	A
Collector peak current	$i_{C(peak)}$	1.5	A
Surge collector current	$I_{C(surge)}$	4	A
Collector power dissipation	$P_C$	0.9	W
Junction temperature	$T_J$	150	°C
Storage temperature	$T_{stg}$	-55 to +150	°C

## Electrical Characteristics

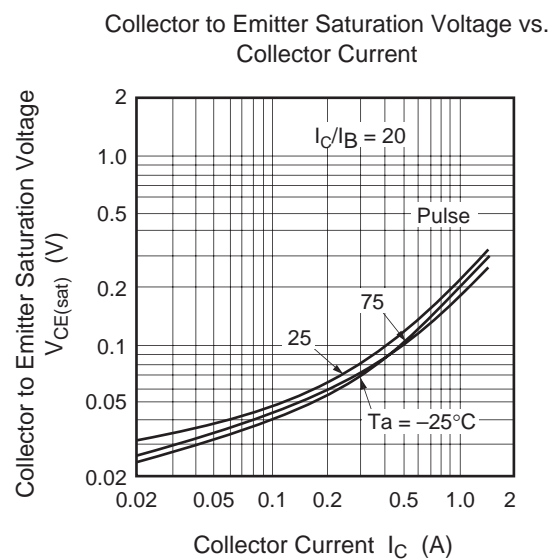
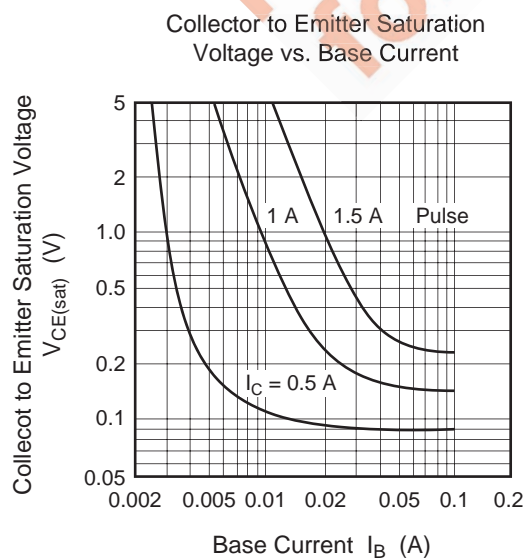
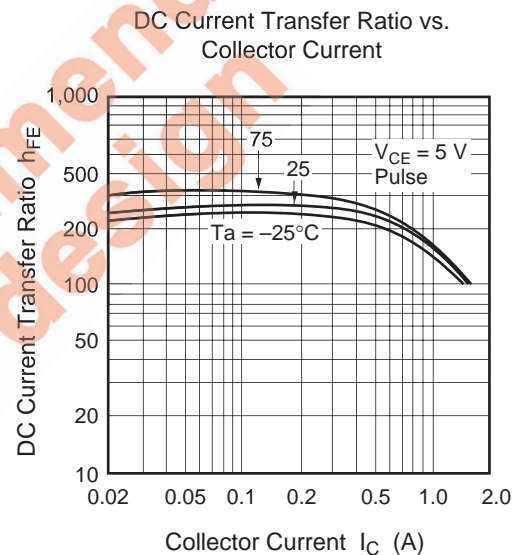
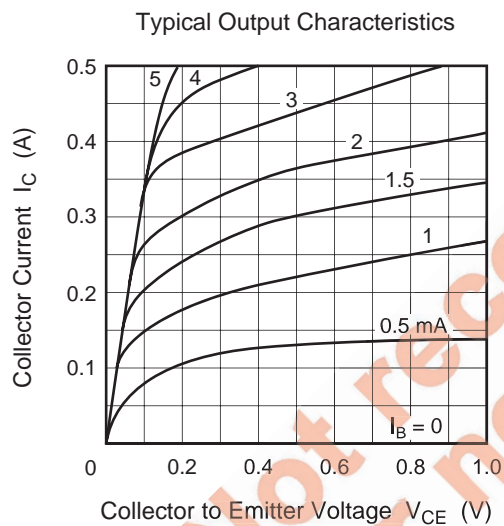
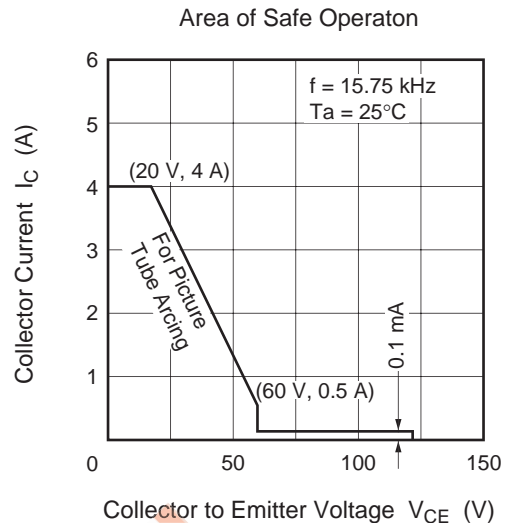
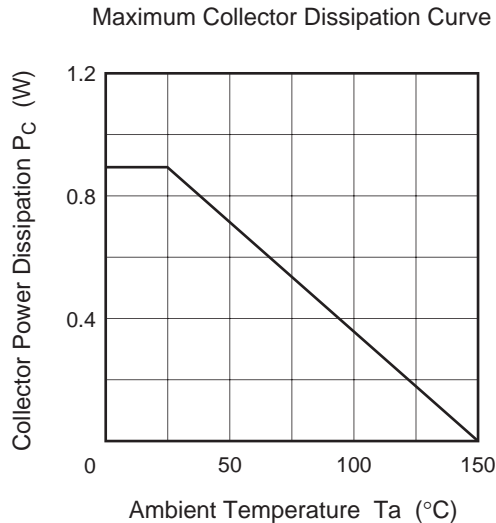
(Ta = 25°C)

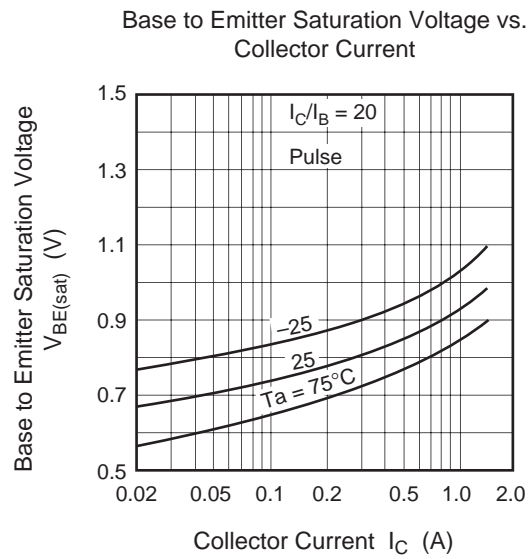
Item	Symbol	Min	Typ	Max	Unit	Test conditions
Collector to base breakdown voltage	$V_{(BR)CBO}$	120	—	—	V	$I_C = 10 \mu A, I_E = 0$
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	60	—	—	V	$I_C = 1 mA, R_{BE} = \infty$
Emitter to base breakdown voltage	$V_{(BR)EBO}$	5	—	—	V	$I_E = 10 \mu A, I_C = 0$
Collector cutoff current	$I_{CBO}$	—	—	1.0	$\mu A$	$V_{CB} = 100 V, I_E = 0$
DC current transfer ratio	$h_{FE}$	150	—	—		$V_{CE} = 5 V, I_C = 1 A^{*1}$
Collector to emitter saturation voltage	$V_{CE(sat)}$	—	—	0.3	V	$I_C = 1 A, I_B = 0.05 A^{*1}$
Base to emitter saturation voltage	$V_{BE(sat)}$	—	—	1.2	V	
Fall time	$t_f$	—	0.4	—	pF	$I_{CP} = 1 A, I_{B1} = -I_{B2} = 50 mA^{*1}$

Note: 1. Pulse test

Not recommend  
for new design

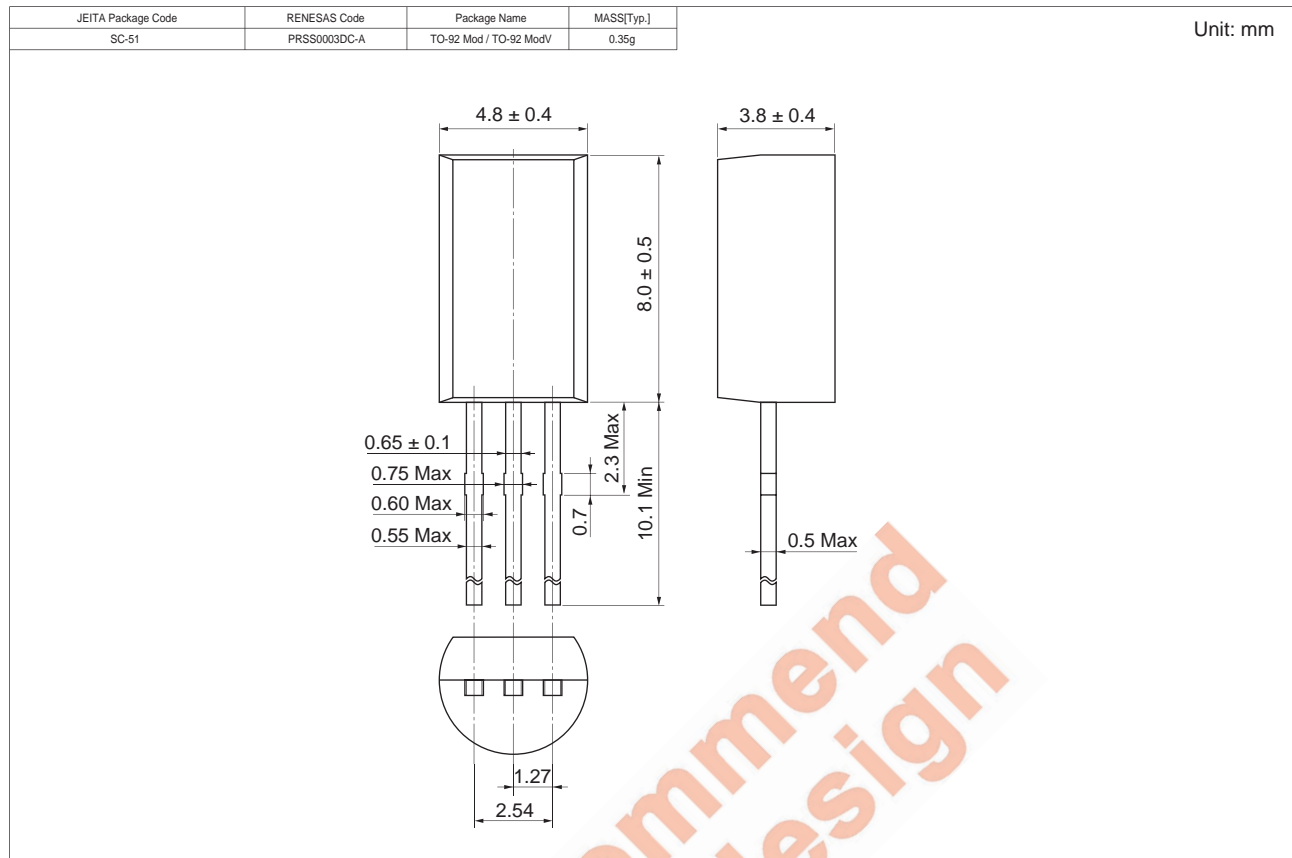
## Main Characteristics





Not recommend  
for new design

## Package Dimensions



## Ordering Information

Part Name	Quantity	Shipping Container
2SD974TZ-E	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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