

2SD1209(K)

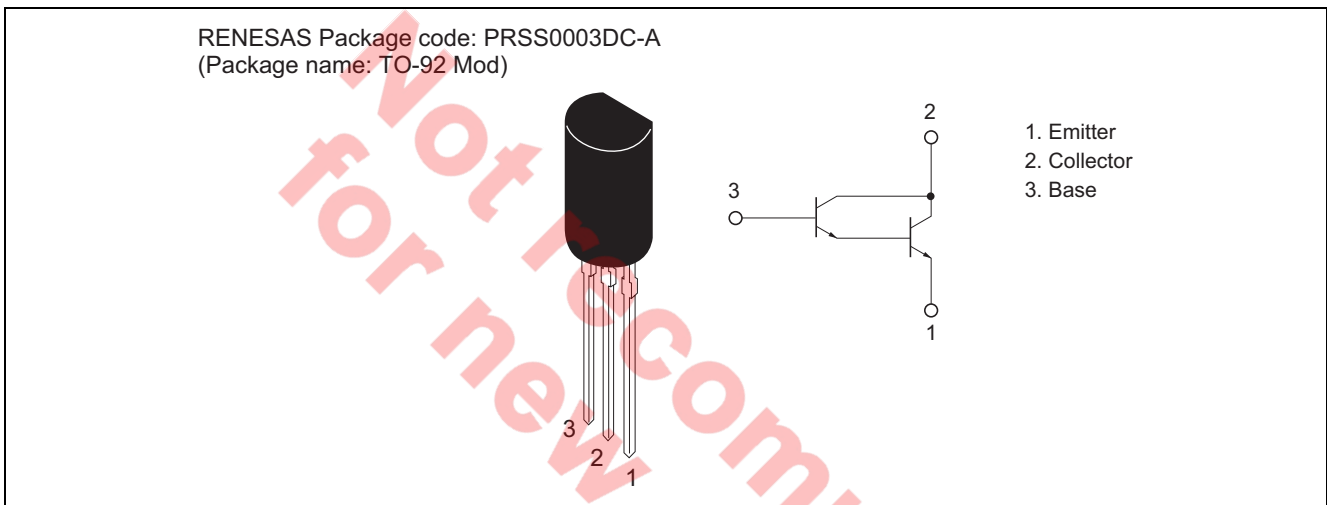
Silicon NPN Epitaxial, Darlington

REJ03G0783-0200
 (Previous ADE-208-1143)
 Rev.2.00
 Aug.10.2005

Application

- Low frequency power amplifier
- Complementary pair with 2SA1193(K)

Outline



Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Ratings	Unit
Collector to base voltage	V_{CBO}	60	V
Collector to emitter voltage	V_{CEO}	60	V
Emitter to base voltage	V_{EBO}	7	V
Collector current	I_C	1	A
Collector peak current	$i_{C(peak)}$	2	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

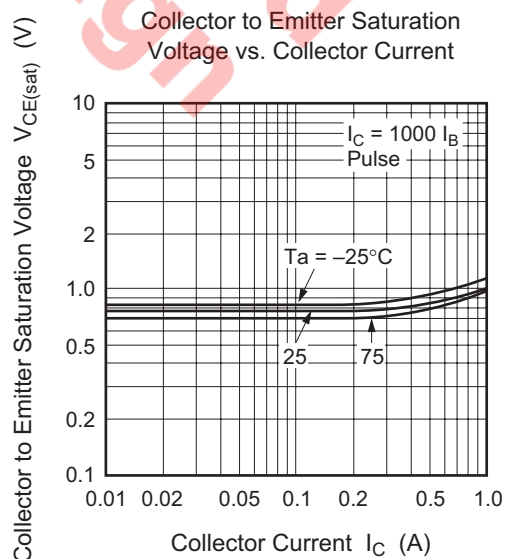
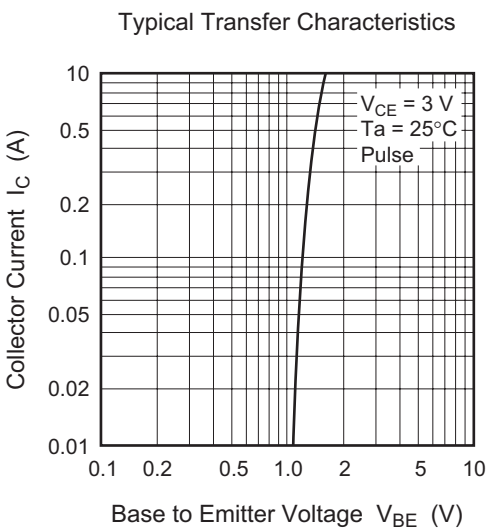
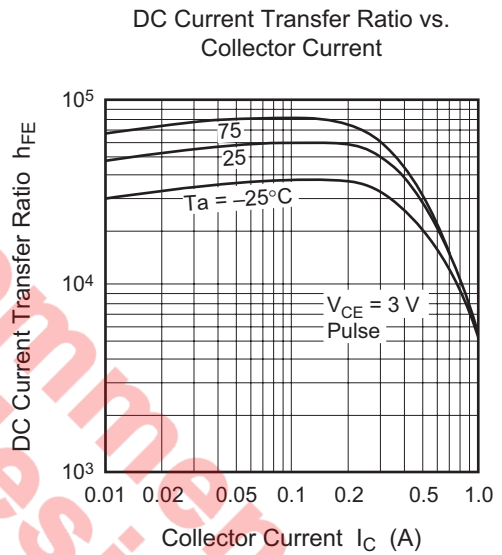
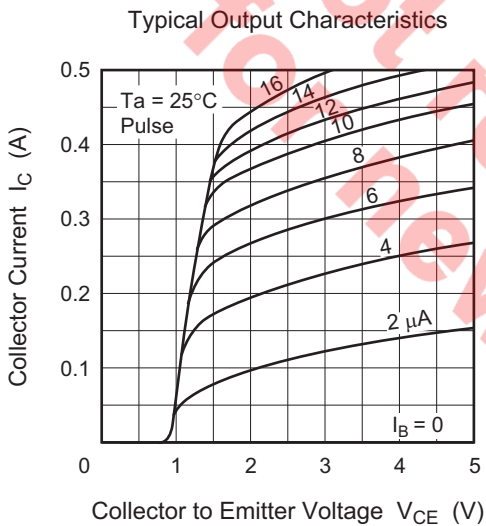
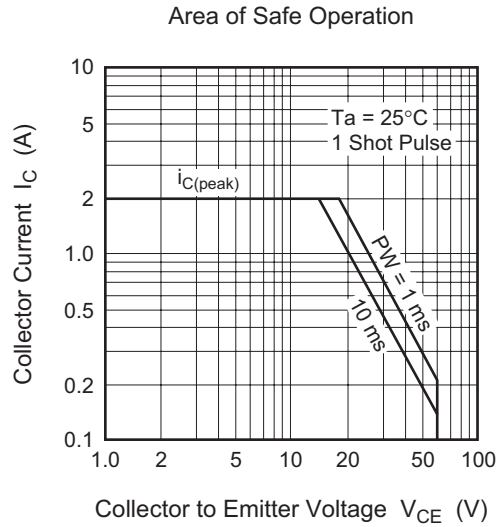
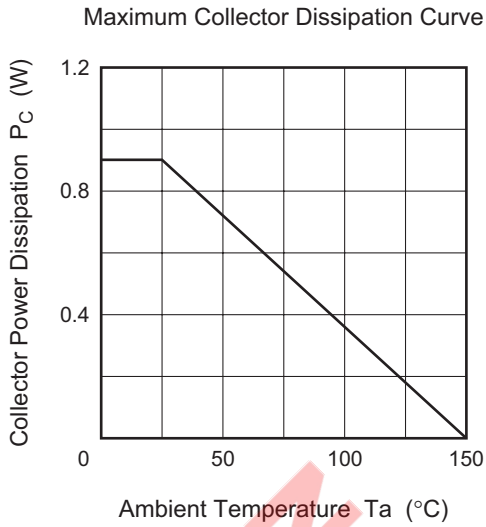
(Ta = 25°C)

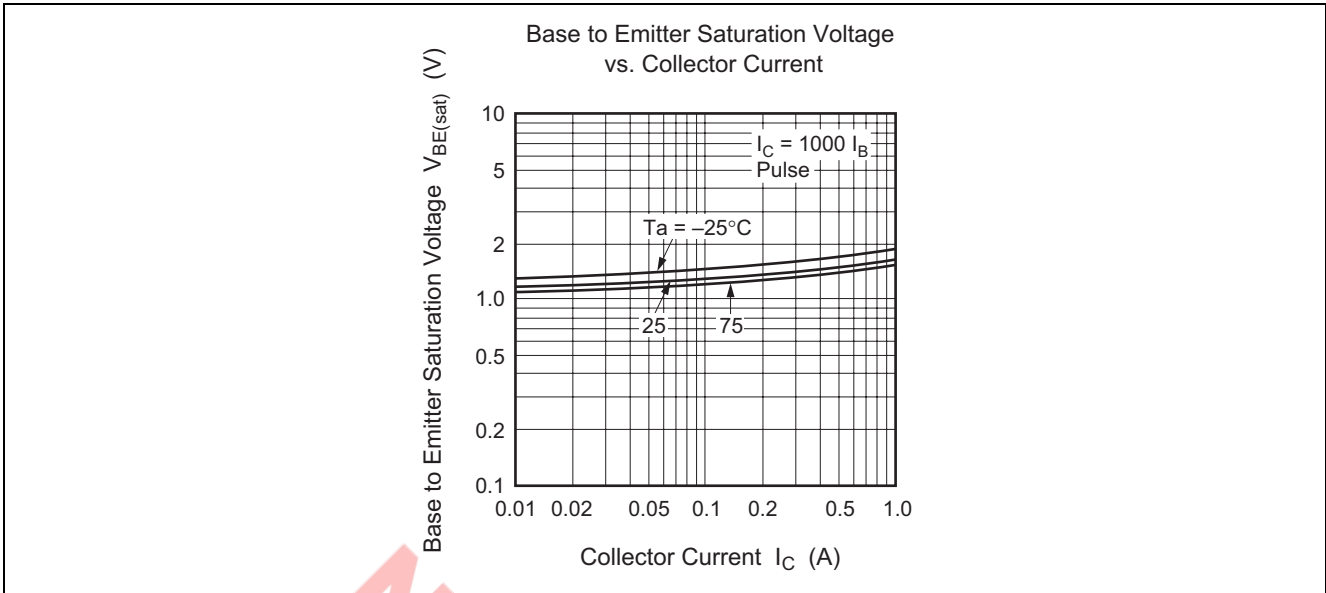
Item	Symbol	Min	Typ	Max	Unit	Test conditions
Collector to base breakdown voltage	$V_{(BR)CBO}$	60	—	—	V	$I_C = 0.1 \text{ mA}, I_E = 0$
Collector cutoff current	I_{CEO}	—	—	100	μA	$V_{CE} = 60 \text{ V}, R_{BE} = \infty$
Emitter cutoff current	I_{EBO}	—	—	100	μA	$V_{EB} = 7 \text{ V}, I_C = 0$
DC current transfer ratio	h_{FE}	4000	—	—		$V_{CE} = 3 \text{ V}, I_C = 0.5 \text{ A}^{*1}$
Collector to emitter saturation voltage	$V_{CE(sat)}$	—	—	1.5	V	$I_C = 500 \text{ mA}, I_B = 0.5 \text{ mA}^{*1}$
Base to emitter saturation voltage	$V_{BE(sat)}$	—	—	2.0	V	$I_C = 500 \text{ mA}, I_B = 0.5 \text{ mA}^{*1}$

Note: 1. Pulse test

Not recommend
for new design

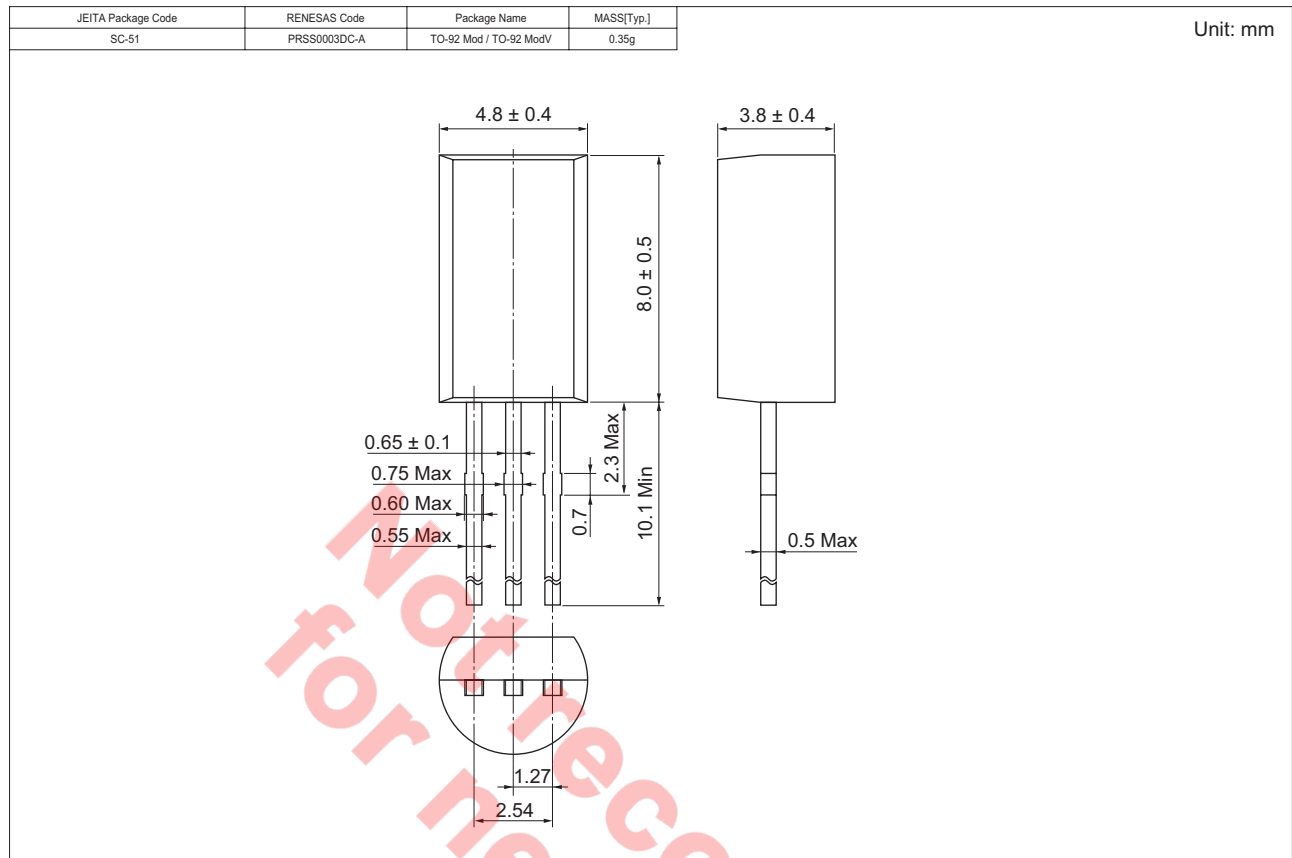
Main Characteristics





Not recommend
for new design

Package Dimensions



Ordering Information

Part Name	Quantity	Shipping Container
2SD1209KTZ-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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