
2SD1572, 2SD1600

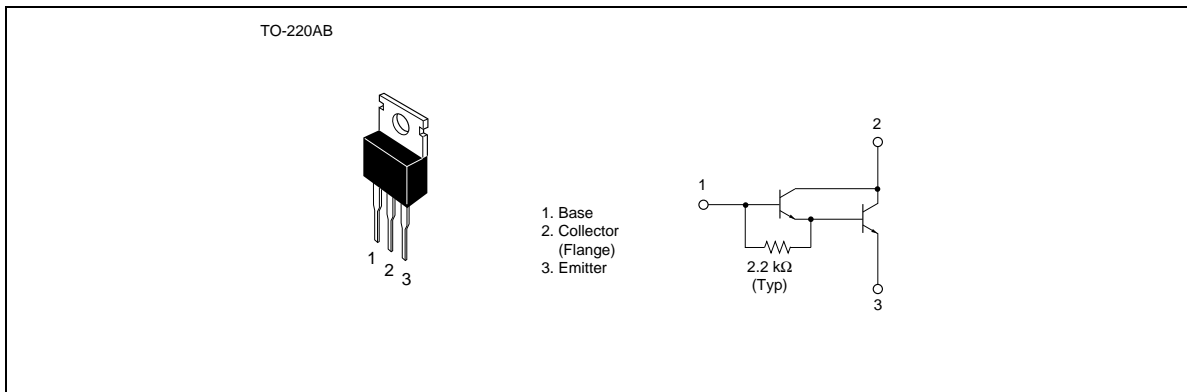
Silicon NPN Triple Diffused

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Application

Low frequency power amplifier complementary pair with 2SB1091

Outline



Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

Item	Symbol	Ratings		Unit
		2SD1572	2SD1600	
Collector to base voltage	V_{CBO}	60	80	V
Collector to emitter voltage	V_{CEO}	60	80	V
Emitter to base voltage	V_{EBO}	7	7	V
Collector current	I_C	8	8	A
Collector peak current	$I_{C(\text{peak})}$	12	12	A
Collector power dissipation	P_C^{*1}	40	40	W
Junction temperature	T_j	150	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	-55 to +150	$^\circ\text{C}$

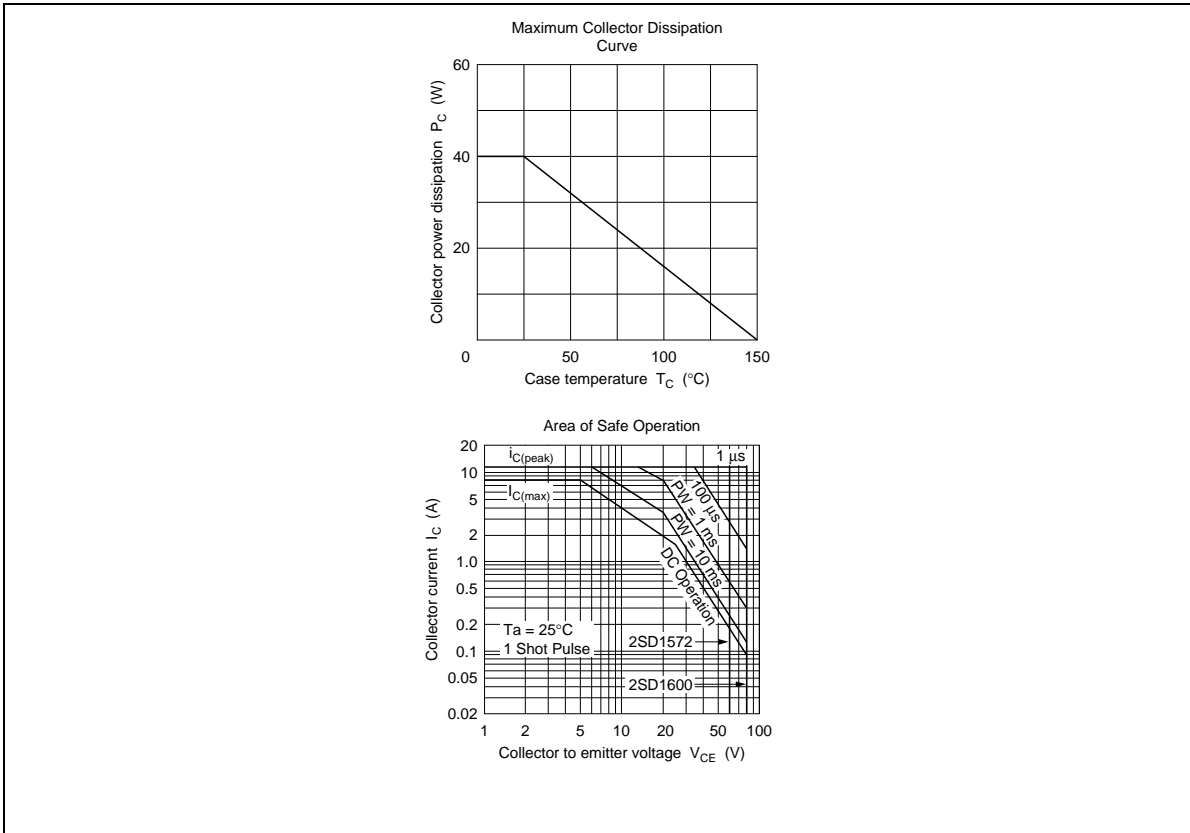
Note: 1. Value at $T_c = 25^\circ\text{C}$.

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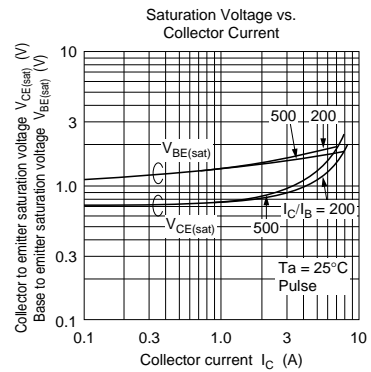
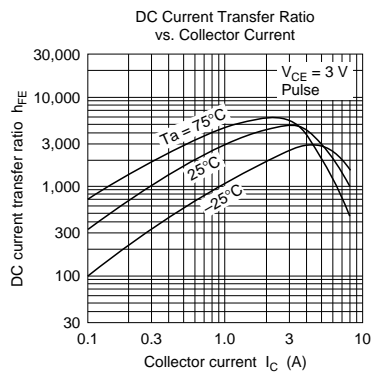
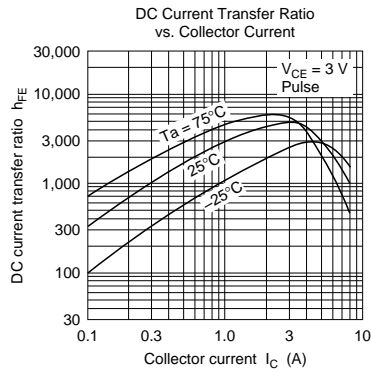
Electrical Characteristics (Ta = 25°C)

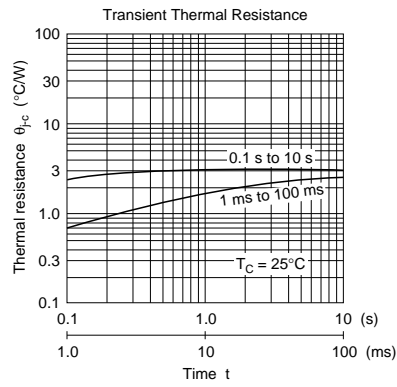
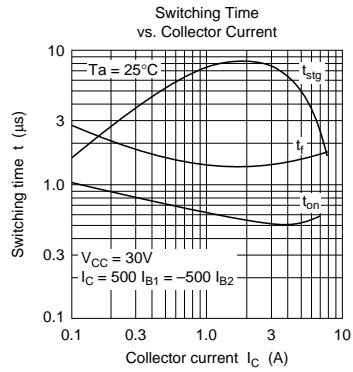
Item	Symbol	2SD1572			2SD1600			Unit	Test conditions
		Min	Typ	Max	Min	Typ	Max		
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	60	—	—	80	—	—	V	$I_C = 25 \text{ mA}, R_{BE} = \infty$
Emitter to base breakdown voltage	$V_{(BR)EBO}$	7	—	—	7	—	—	V	$I_E = 50 \text{ mA}, I_C = 0$
Collector cutoff current	I_{CBO}	—	—	100	—	—	100	μA	$V_{CB} = 60 \text{ V}, I_E = 0$
	I_{CEO}	—	—	10	—	—	10	μA	$V_{CE} = 50 \text{ V}, R_{BE} = \infty$
DC current transfer ratio	h_{FE}	1000	—	20000	1000	—	20000		$V_{CE} = 3 \text{ V}, I_C = 4 \text{ A}^{*1}$
Collector to emitter saturation voltage	$V_{CE(sat)1}$	—	—	1.5	—	—	1.5	V	$I_C = 4 \text{ A}, I_B = 8 \text{ mA}^{*1}$
	$V_{CE(sat)2}$	—	—	3.0	—	—	3.0	V	$I_C = 8 \text{ A}, I_B = 80 \text{ mA}^{*1}$
Base to emitter saturation voltage	$V_{BE(sat)1}$	—	—	2.0	—	—	2.0	V	$I_C = 4 \text{ A}, I_B = 8 \text{ mA}^{*1}$
	$V_{BE(sat)2}$	—	—	3.5	—	—	3.5	V	$I_C = 8 \text{ A}, I_B = 80 \text{ mA}^{*1}$
Turn on time	t_{on}	—	0.5	—	—	0.5	—	μs	$I_C = 4 \text{ A},$
Storage time	t_{stg}	—	6.0	—	—	6.0	—	μs	$I_{B1} = -I_{B2} = 8 \text{ mA}$
Fall time	t_f	—	1.5	—	—	1.5	—	μs	

Note: 1. Pulse test.



2SD1572, 2SD1600





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