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2SD1606

Silicon NPN Triple Diffused

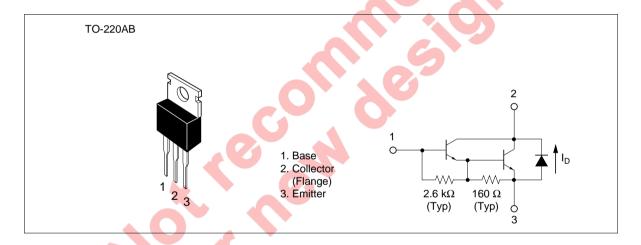


ADE-208-915 (Z) 1st. Edition September 2000

Application

Low frequency power amplifier

Outline



2SD1606

Absolute Maximum Ratings (Ta = 25°C)

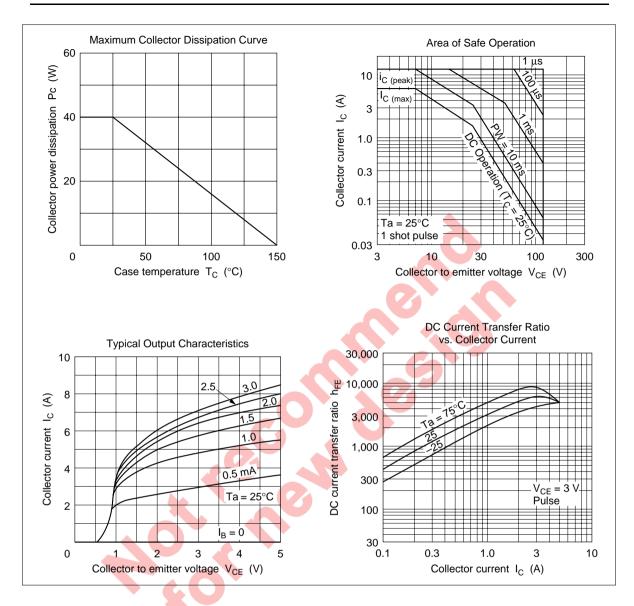
Item	Symbol	Ratings	Unit
Collector to base voltage	V_{CBO}	120	V
Collector to emitter voltage	V_{CEO}	V _{CEO} 120	
Emitter to base voltage	V_{EBO}	7	V
Collector current	I _c	6	A
Collector peak current	I _{C(peak)}	12	A
Collector power dissipation	P _c *1	40	W
Junction temperature	Tj	150	°C
Storage temperature	Tstg	-55 to +150	°C
C to E diode forward current	I _D *1	6	A

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

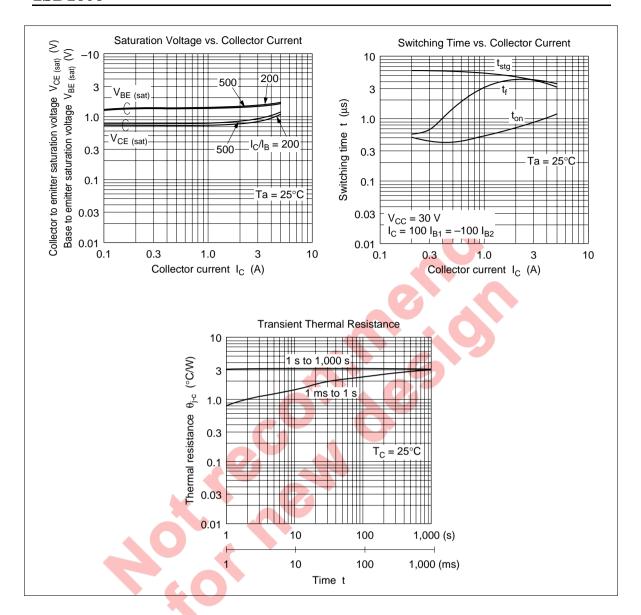
Electrical Characteristics ($Ta = 25^{\circ}C$)

Item	Symbol	Min	Тур	Max	Unit	Test conditions
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	120		-	V	I_{C} = 25 mA, R_{BE} = ∞
Emitter to base breakdown voltage	$V_{(BR)EBO}$	7	_	0	V	$I_{E} = 50 \text{ mA}, I_{C} = 0$
Collector cutoff current	I _{CBO}			100	μΑ	$V_{CB} = 120 \text{ V}, I_{E} = 0$
	I _{CEO}			10	μΑ	$V_{CE} = 100 \text{ V}, R_{BE} = \infty$
DC current transfer ratio	h _{FE}	1000	-	20000		$V_{CE} = 3 \text{ V}, I_{C} = 3 \text{ A}^{*1}$
Collector to emitter saturation	V _{CE(sat)1}	A.	_	1.5	V	$I_{\rm C} = 3 \text{ A}, I_{\rm B} = 6 \text{ mA}^{*1}$
voltage	$V_{\text{CE}(\text{sat})2}$	-	_	3.0	V	$I_{\rm C} = 6 \text{ A}, I_{\rm B} = 60 \text{ mA}^{*1}$
Base to emitter saturation	V _{BE(sat)1}	_	_	2.0	V	$I_{\rm C} = 3 \text{ A}, I_{\rm B} = 6 \text{ mA}^{*1}$
voltage	V _{BE(sat)2}	_	_	3.5	V	$I_{\rm C} = 6 \text{ A}, I_{\rm B} = 60 \text{ mA}^{*1}$
C to E diode forward voltage	V _D	_	_	3.0	V	$I_D = 6 A^{*1}$
Turn on time	t _{on}	_	0.6	_	μs	$I_C = 3 \text{ A}, I_{B1} = -I_{B2} = 6 \text{ mA}$
Storage time	t _{stg}	_	7.0	_	μs	_
Fall time	t _f	_	2.0	_	μs	

Note: 1. Pulse test.



2SD1606



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