2SD2096

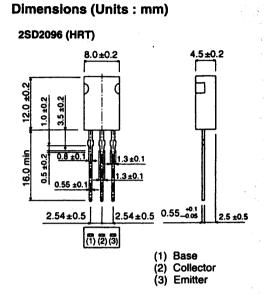
Transistor, NPN

Features

- available in HRT package
- low collector saturation voltage, typically V_{CE(sat)} = 0.3 V at I_C/I_B = 2 A/ 0.2 A
- excellent current-to-gain characteristics
- large collector loss: P_C = 1.8 W
- wide safe operating area (SOA)

Applications

low frequency power amplifier



Absolute maximum ratings $(T_a = 25^{\circ}C)$

Parameter	Symbol	Limits	Unit	Conditions
Collector-to-base voltage	V _{CBO}	80	V	
Collector-to-emitter voltage	V _{CEO}	60	V	
Emitter-to-base voltage	V _{EBO}	5	V	
Collector current	l _C	3	Α	Continuous (dc)
		6	Α	Single pulse, P _W = 100 ms
Collector dissipation	Pc	1.8	W	
Junction temperature	T,	150	°C	
Storage temperature	T _{stg}	-55 ~ +150	°C	

ROHM

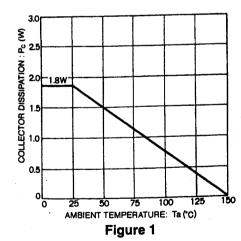
Electrical characteristics (unless otherwise noted, $T_a = 25$ °C)

Parameter	Symbol	Min	Typical	Max	Unit	Conditions
Collector-to-base breakdown voltage	BV _{CBO}	80			٧	I _C = 50 μA
Collector-to-emitter breakdown voltage	BV _{CEO}	60			V	I _C = 1 mA
Emitter-to-base breakdown voltage	BV _{EBO}	5			V	I _E = 50 μA
Collector cutoff current	Ісво			10	μА	V _{CB} = 60 V
Emitter cutoff current	I _{EBO}			10	μΑ	V _{EB} = 4 V
DC current gain	h _{FE}	60		320		$V_{CE} = 5 \text{ V}$, $I_{C} = 0.5 \text{ A}$, single pulse
Collector-to-emitter saturation voltage	V _{CE(sat)}		0.3	1.0	V	$I_{\rm C}/I_{\rm B} = 2$ A/0.2 A, single pulse
Base-to-emitter saturation voltage	V _{BE(sat)}			1.5	V	$I_{\text{C}}/I_{\text{B}} = 2 \text{ A}/0.2 \text{ A, single pulse}$
Transition frequency	f _T		8		MHz	$V_{CE} = 5 \text{ V}, I_{E} = -0.5 \text{ A}, f = 5 \text{ MHz}$
Output capacitance	C _{ob}		70		pF	$V_{CB} = 10 \text{ V}, I_E = 0 \text{ A}, f = 1 \text{ MHz}$

h_{FE} rankings

	Item	D	E	F	
į	h _{FE}	60 ~ 120	100 ~ 200	160 ~ 320	

Electrical characteristic curves



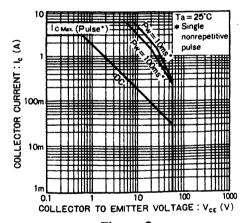
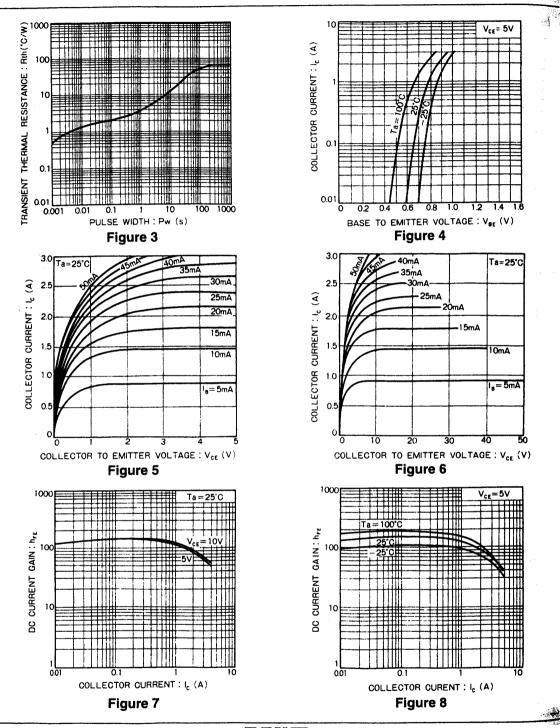
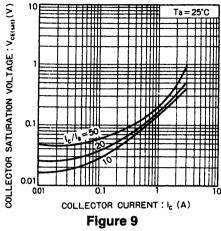


Figure 2





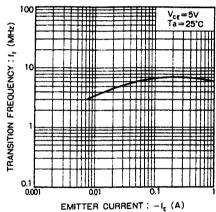


Figure 11

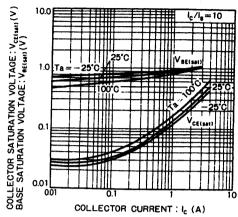


Figure 10

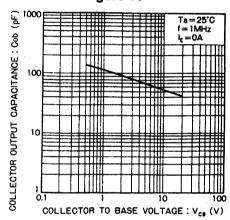


Figure 12

Ordering information

Package	Tape	
Code	T114	
Basic order quantity	1 000	
2SD2096 ★		
* = Standard, ☆ = Semi-standard, * = Special order		

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