

2SD2028



Low-Frequency Power Amplifier Applications

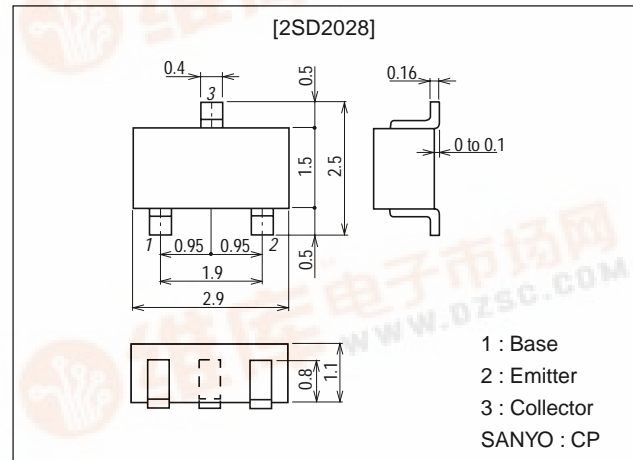
Features

- With Zener diode (11±3V) between collector and base.
- Large current capacity.
- Low collector-to-emitter saturation voltage.
- Ultrasmall-sized package permitting the 2SD2028-applied sets to be made small and slim.

Package Dimensions

unit:mm

2018B



Specifications

Absolute Maximum Ratings at Ta = 25°C

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V _{CB0}	With Zener diode (11±3V)	8	V
Collector-to-Emitter Voltage	V _{CEO}	With Zener diode (11±3V)	8	V
Emitter-to-Base Voltage	V _{EBO}		5	V
Collector Current	I _C		0.7	A
Collector Current (Pulse)	I _{CP}		1.5	A
Collector Dissipation	P _C		200	mW
Junction Temperature	T _j		150	°C
Storage Temperature	T _{stg}		-55 to +150	°C

Electrical Characteristics at Ta = 25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	I _{CB0}	V _{CB} =6V, I _E =0			100	nA
Emitter Cutoff Current	I _{EBO}	V _{EB} =4V, I _C =0			100	nA
DC Current Gain	h _{FE1}	V _{CE} =2V, I _C =50mA	200*		900*	
	h _{FE2}	V _{CE} =2V, I _C =500mA	100			
Gain-Bandwidth Product	f _T	V _{CE} =2V, I _C =50mA		200		MHz
Output Capacitance	C _{ob}	V _{CB} =5V, f=1MHz		12		pF

* : The 2SD2028 is classified by 50mA h_{FE} as follows :

(Note) Marking : LT
h_{FE} rank : 6, 7, 8

200	6	400	300	7	600	450	8	900
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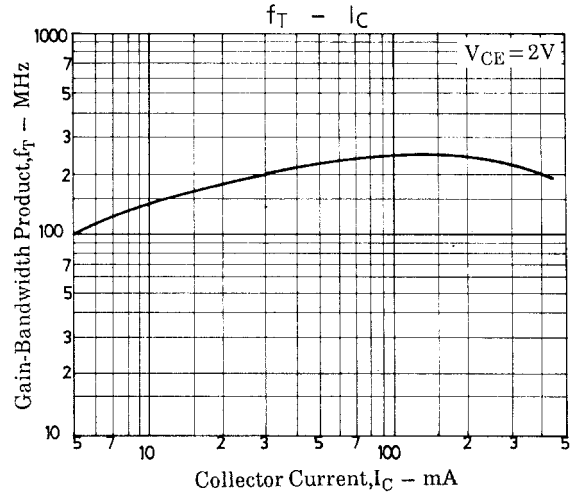
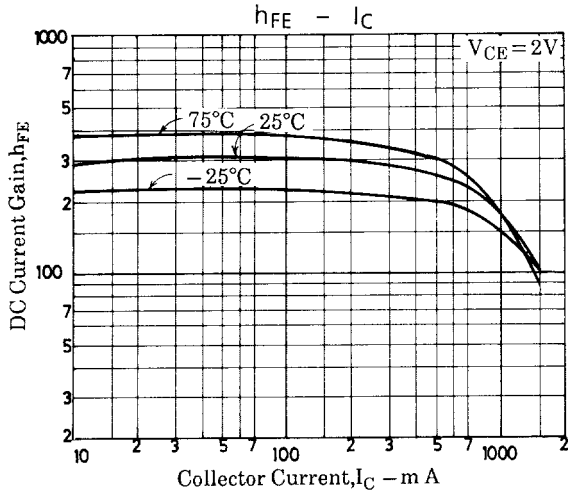
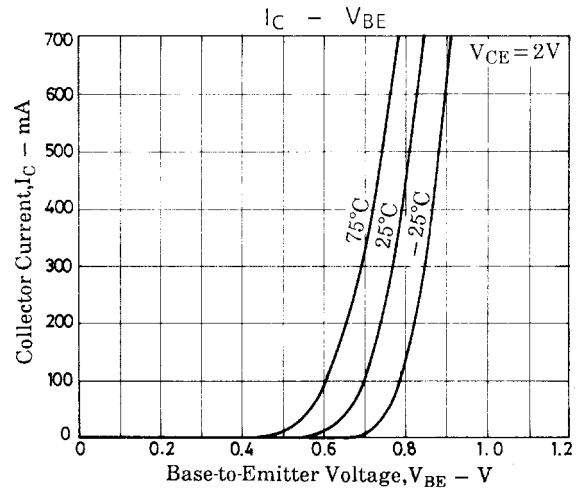
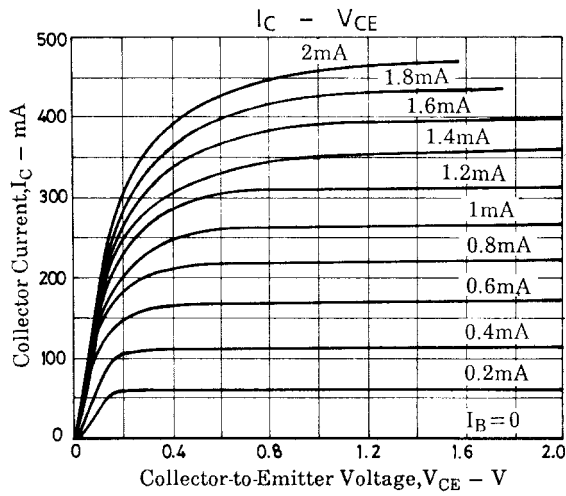
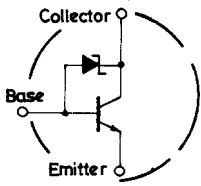


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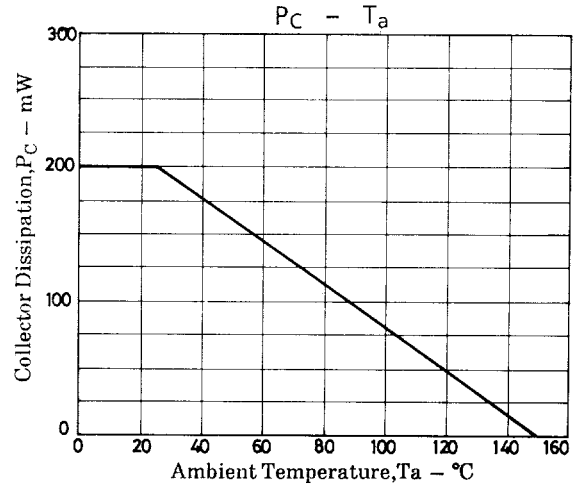
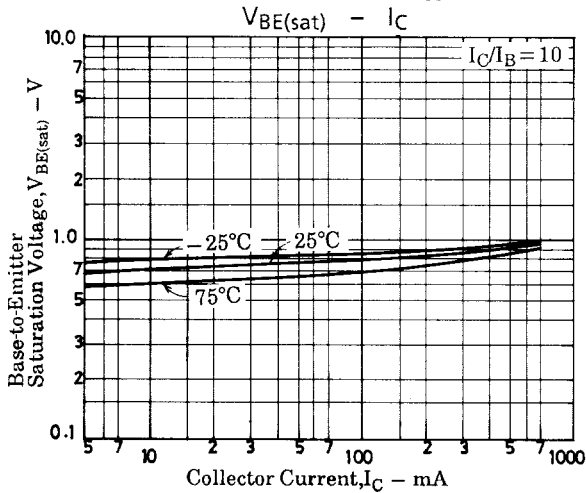
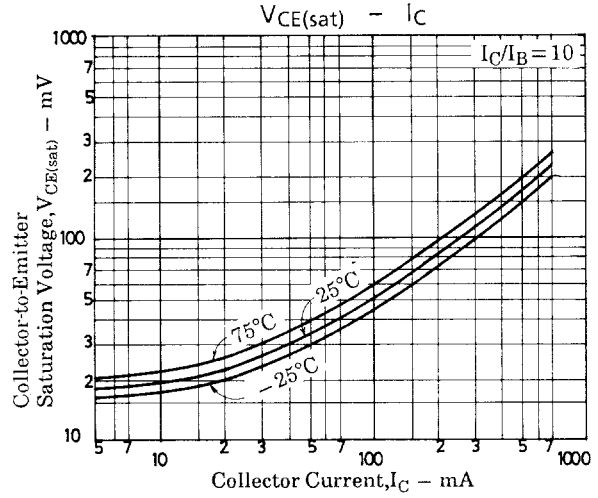
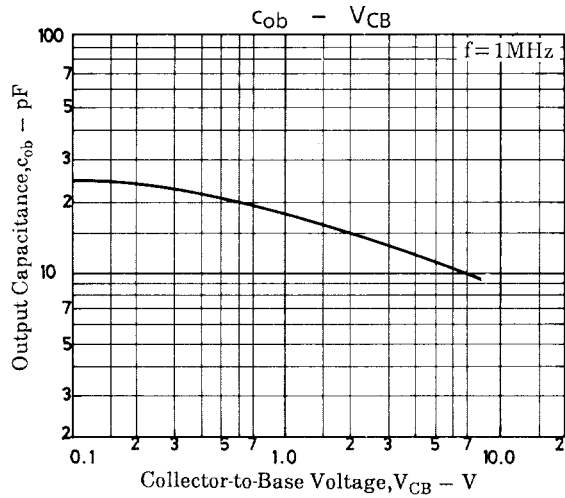
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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=100mA, I_B=10mA$		50	120	mV
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=100mA, I_B=10mA$		0.8	1.2	V
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=100\mu A, I_E=0$	8	11	14	V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=100\mu A, R_{BE}=\infty$	8	11	14	V
Emitter-to-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=10\mu A, I_C=0$	5			V

Electrical Connection



2SD2028



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