

<b>SANYO</b>	No.2803	<b>2SD2028</b>
		NPN Epitaxial Planar Silicon Transistor
<b>Low-Frequency Power Amp Applications</b>		

**Features**

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

**Absolute Maximum Ratings at  $T_a = 25^\circ C$**

			unit
Collector to Base Voltage	$V_{CB0}$	[With Zener diode ( $11 \pm 3V$ )	8 V
Collector to Emitter Voltage	$V_{CEO}$		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 $^\circ C$
Storage Temperature	$T_{stg}$		-55 to +150 $^\circ C$

**Electrical Characteristics at  $T_a = 25^\circ C$**

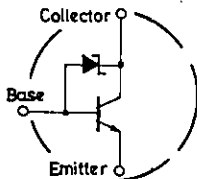
			min	typ	max	unit
Collector Cutoff Current	$I_{CBO}$	$V_{CB} = 6V, I_E = 0$			100	nA
Emitter Cutoff Current	$I_{EBO}$	$V_{EB} = 4V, I_C = 0$			100	nA
DC Current Gain	$h_{FE(1)}$	$V_{CE} = 2V, I_C = 50mA$	200*		900*	
	$h_{FE(2)}$	$V_{CE} = 2V, I_C = 500mA$	100			
Gain-Bandwidth Product	$f_T$	$V_{CE} = 2V, I_C = 50mA$		200		MHz
Output Capacitance	$c_{ob}$	$V_{CB} = 5V, f = 1MHz$		12		pF
C-E Saturation Voltage	$V_{CE(sat)}$	$I_C = 100mA, I_B = 10mA$		50	120	mV
B-E Saturation Voltage	$V_{BE(sat)}$	$I_C = 100mA, I_B = 10mA$		0.8	1.2	V
C-B Breakdown Voltage	$V_{(BR)CBO}$	$I_C = 100\mu A, I_E = 0$	8	11	14	V
C-E Breakdown Voltage	$V_{(BR)CEO}$	$I_C = 100\mu A, R_{BE} = \infty$	8	11	14	V
E-B Breakdown Voltage	$V_{(BR)EBO}$	$I_E = 10\mu A, I_C = 0$	5			V

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

200	6	400	300	7	600	450	8	900
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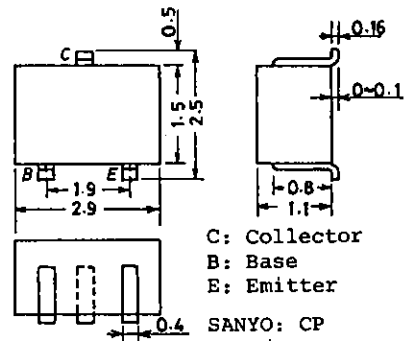
(Note) Marking: LT  
 $h_{FE}$  rank: 6,7,8

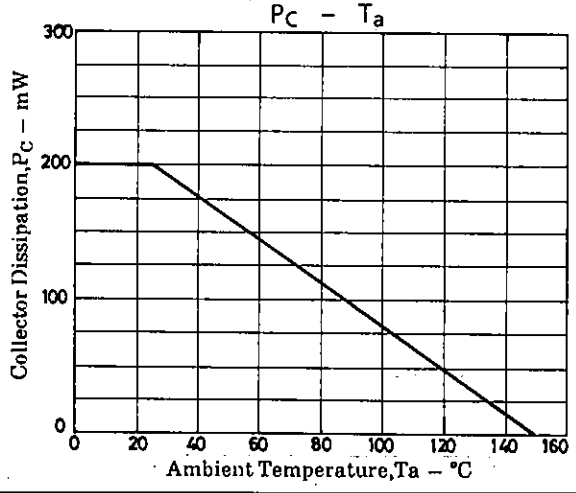
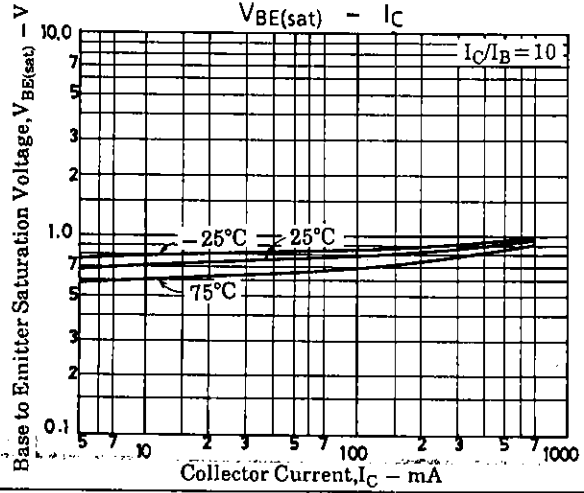
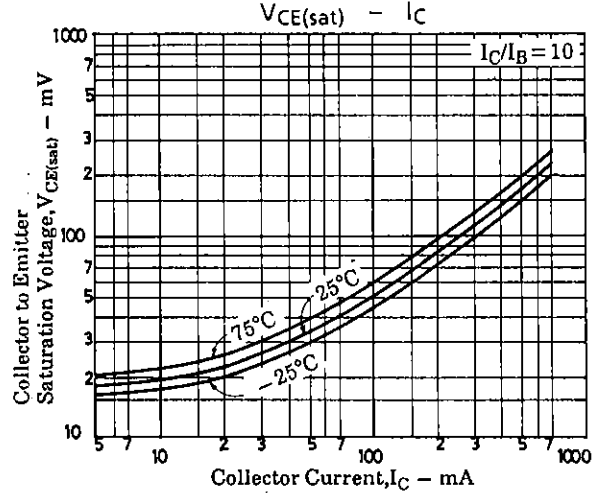
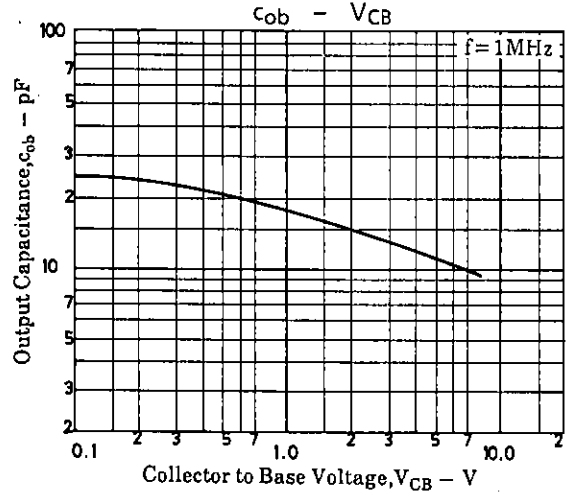
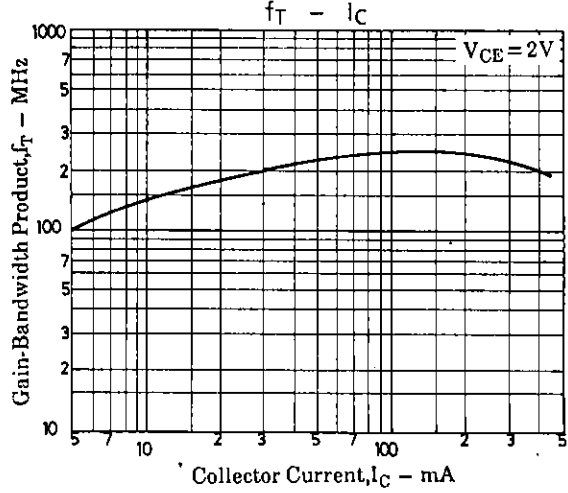
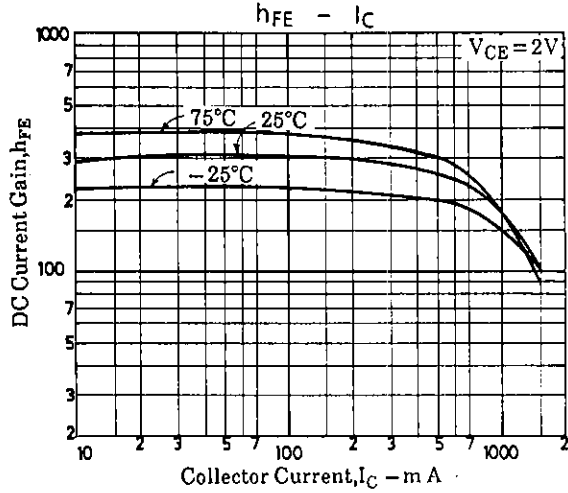
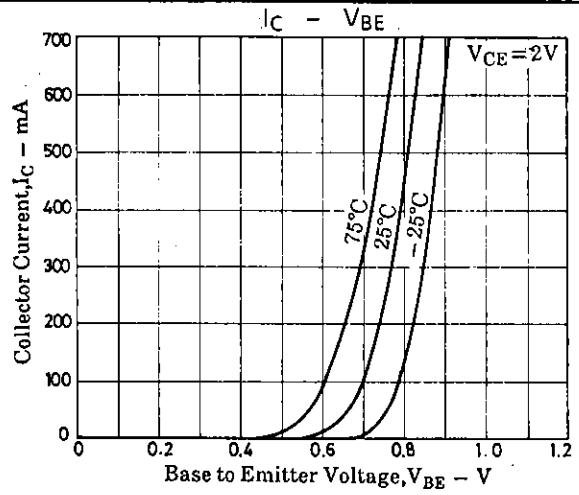
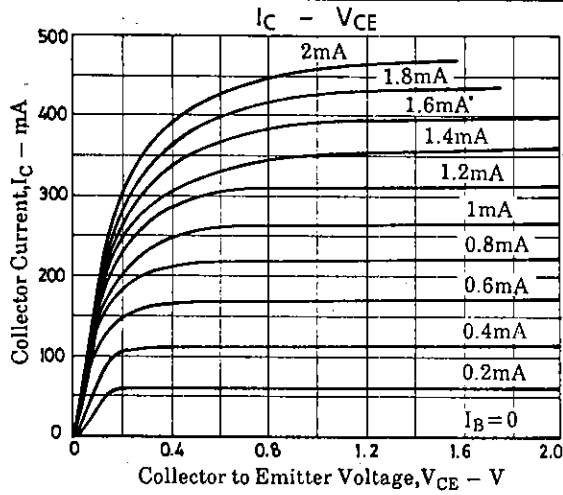
**Electrical Connection**



**Package Dimensions 2018A**

(unit: mm)





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