

〈SMALL-SIGNAL TRANSISTOR〉

**2SA1285, 2SA1285A**

FOR PRE-DRIVE APPLICATION  
SILICON PNP EPITAXIAL TYPE

**DESCRIPTION**

2SA1285, 2SA1285A is a silicon PNP epitaxial type transistor. Designed with high voltage, high hFE, high fr, small Cob and excellent hFE lineary.

Complementary with 2SC3245, 2SC3245A.

**FEATURE**

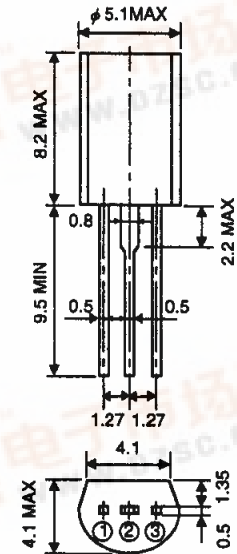
- High voltage VCE0=120, 150V
- High fr fr=200MHz, low Cob Cob=3.5pF typ
- High hFE hFE=150 to 800
- High collector dissipation Pc=900mW

**APPLICATION**

Pre-drive level of output 40 to 80W main amp. End level of tone control amp, equalizer amp.

**OUTLINE DRAWING**

Unit:mm



**TERMINAL CONNECTOR**

- ① : EMITTER
  - ② : COLLECTOR
  - ③ : BASE
- EIAJ : —  
JEDEC : —

Note)

The dimension without tolerance represent central value.

**MAXIMUM RATINGS (Ta=25°C)**

Symbol	Parameter	Ratings		Unit
		2SA1285	2SA1285A	
Vcbo	Collector to Base voltage	-120	-150	V
VEBO	Emitter to Base voltage	-5	-5	V
VCEO	Collector to Emitter voltage	-120	-150	V
Ic	Collector current	-100		mA
Pc	Collector dissipation	900		mW
Tj	Junction temperature	+150		°C
Tstg	Storage temperature	-55 to +150		°C

**ELECTRICAL CHARACTERISTICS (Ta=25°C)**

Symbol	Parameter	Test conditions	Limits						Unit
			2SA1285			2SA1285A			
			Min	Typ	Max	Min	Typ	Max	
V(BR)CBO	C to B break down voltage	Ic = -10 μA, IE = 0	-120			-150			V
V(BR)EBO	E to B break down voltage	IE = -10 μA, Ic=0	-5			-5			V
V(BR)CEO	C to E break down voltage	Ic = -1mA, RE=∞	-120			-150			V
ICBO	Collector cut off current	VCB = -10V, IE=0			-0.1			-0.1	μA
IEBO	Emitter cut off current	VEB = -4V, Ic=0			-0.1			-0.1	μA
hFE *	DC forward current gain	VCE= -10V, Ic= -10mA	150		800	150		500	—
VCE(sat)	C to E saturation voltage	Ic = -50mA, IE= -2.5mA		-0.17	-0.6		-0.17	-0.6	V
fr	Gain band width product	VCE= -10V, IE= 10mA		200			200		MHz
Cob	Collector output capacitance	VCB= -10V, IE= 0, f=1MHz		3.5			3.5		pF

\* : It shows hFE classification in right table.

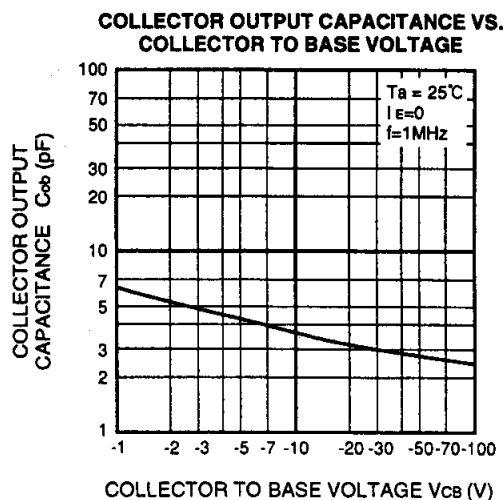
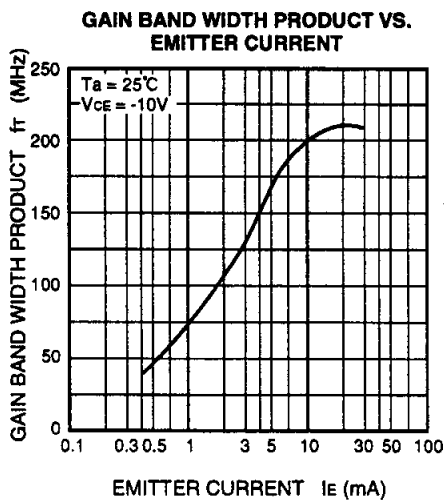
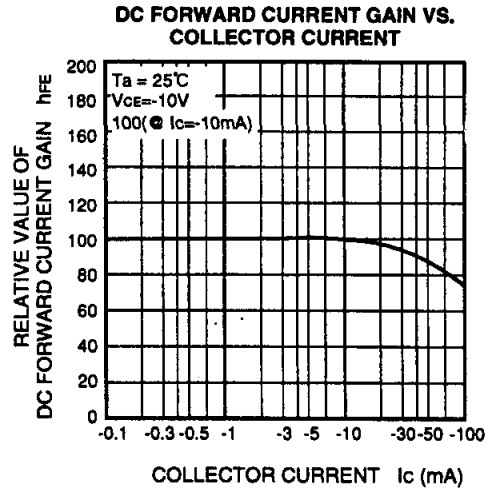
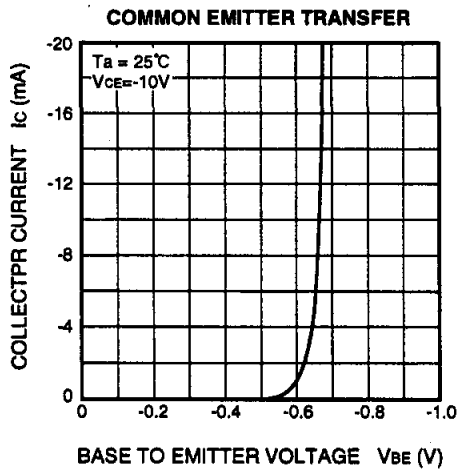
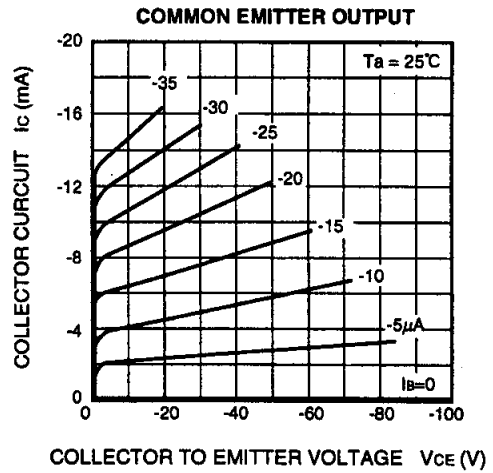
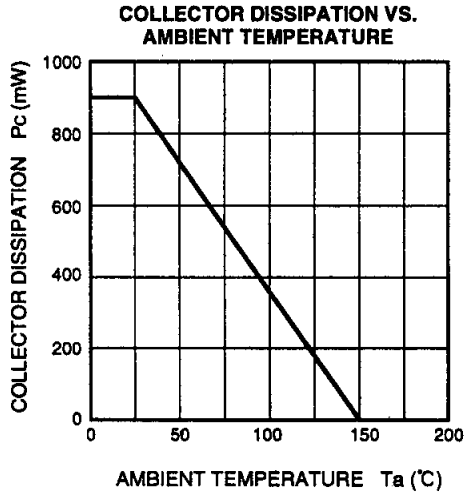
Item	E	F	G
hFE	150 to 300	250 to 500	400 to 800



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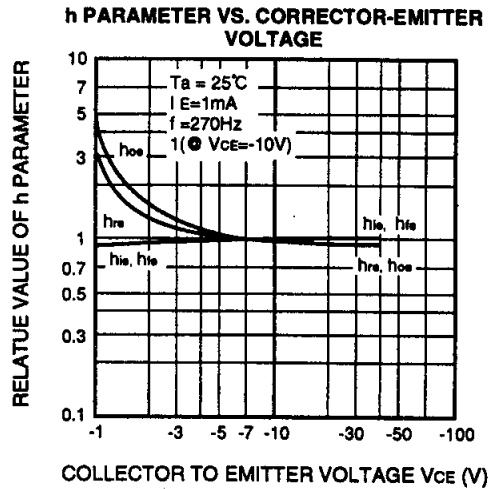
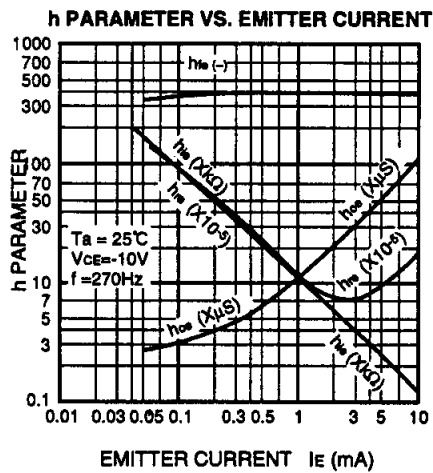
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**TYPICAL CHARACTERISTICS**



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**COMMON EMITTER h PARAMETER (TYPICAL VALUE)**

Symbol	Parameter	Test Conditions	Limits	Unit
$h_{ie}$	Closed loop small signal input impedance	$T_a = 25^\circ\text{C}$ $V_{CE} = -10\text{V}$ $I_E = 1\text{mA}$ $f = 270\text{Hz}$	10.8	$\text{k}\Omega$
$h_{re}$	Open loop small signal reverse voltage amplification factor		1.16	$\times 10^{-4}$
$h_{fe}$	Closed loop small signal forward current amplification factor		400	—
$h_{oe}$	Open loop small signal output admittance		11.2	$\mu\text{S}$

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