

RoHS Compliant Product

FEATURES

Power dissipation

P_{CM} : 500mW ($T_{amb}=25^{\circ}C$)

Collector current

I_{CM} : -1 A

Collector-base voltage

$V_{B(BR)CBO}$: -25 V

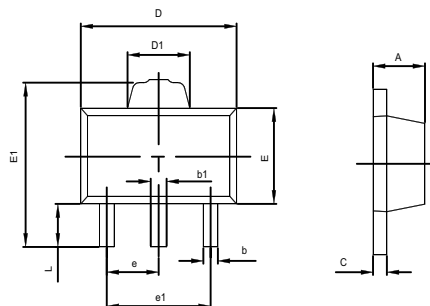
Operating and storage junction temperature range

T_J, T_{stg} : $-55^{\circ}C$ to $+150^{\circ}C$

SOT-89



- 1.BASE
- 2.COLLECTOR
- 3.EMITTER



Symbol	Dimensions in Millimeters		Dimensions in Inches	
	Min	Max	Min	Max
A	1.400	1.600	0.055	0.063
b	0.320	0.520	0.013	0.020
b1	0.360	0.560	0.014	0.022
c	0.350	0.440	0.014	0.017
D	4.400	4.600	0.173	0.181
D1	1.400	1.800	0.055	0.071
E	2.300	2.600	0.091	0.102
E1	3.940	4.250	0.155	0.167
e	1.500TYP		0.060TYP	
e1	2.900	3.100	0.114	0.122
L	0.900	1.100	0.035	0.043

ELECTRICAL CHARACTERISTICS ($T_{amb}=25^{\circ}C$ unless otherwise specified) CLASSIFICATION OF $h_{FE(1)}$

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{B(BR)CBO}$	$I_C=-10 \mu A, I_E=0$	-25			V
Collector-emitter breakdown voltage	$V_{B(BR)CEO}$	$I_C=-1 mA, I_B=0$	-25			V
Emitter-base breakdown voltage	$V_{B(BR)EBO}$	$I_E=-10 \mu A, I_C=0$	-5			V
Collector cut-off current	I_{CBO}	$V_{CB}=-20 V, I_E=0$			-0.1	μA
Collector cut-off current	I_{CEO}	$V_{CE}=-20 V, I_B=0$			-0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=-4V, I_C=0$			-0.1	μA
DC current gain	$h_{FE(1)}$	$V_{CE}=-2V, I_C=-50mA$	100		560	
	$h_{FE(2)}$	$V_{CE}=-2V, I_C=-1A$	40			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=-0.5A, I_B=-50mA$			-0.7	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=-0.5A, I_B=-50mA$			-1.2	V
Transition frequency	f_T	$V_{CE}=-10V, I_C=-50mA$		180		MHz
Collector output capacitance	C_{ob}	$V_{CB}=-10V, f=1MHz$		25		pF

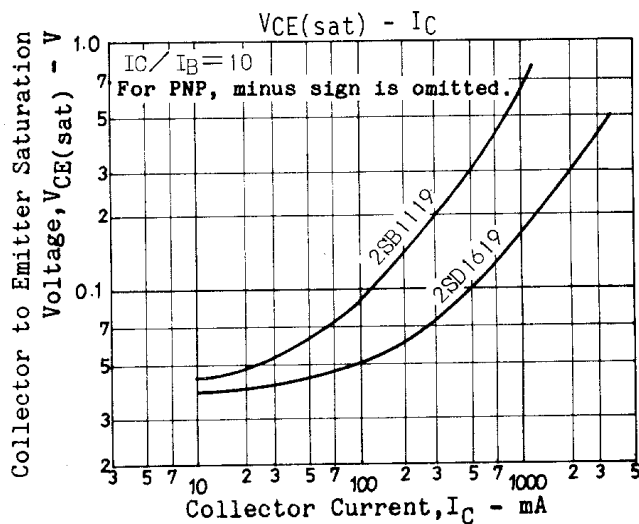
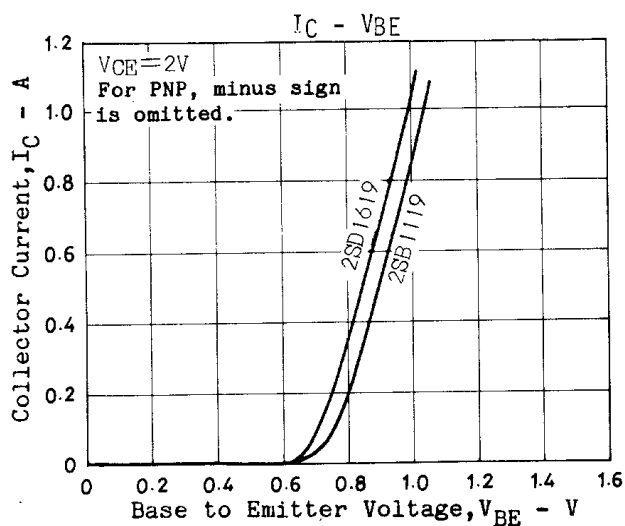
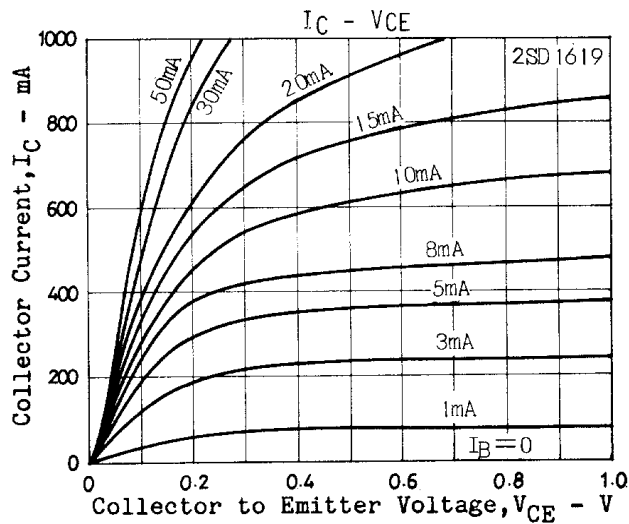
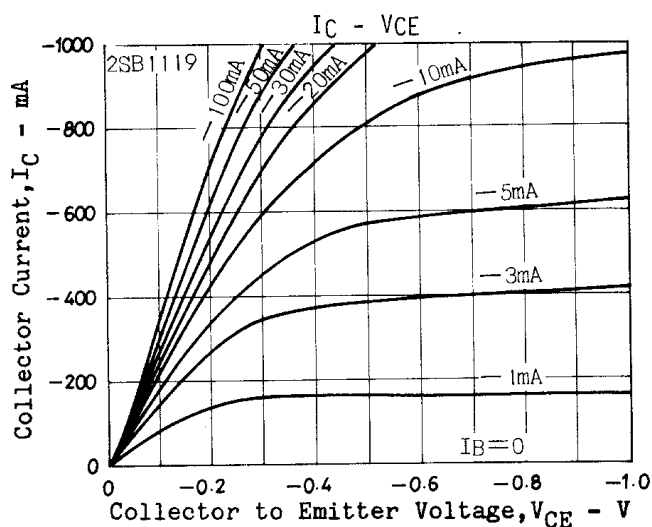
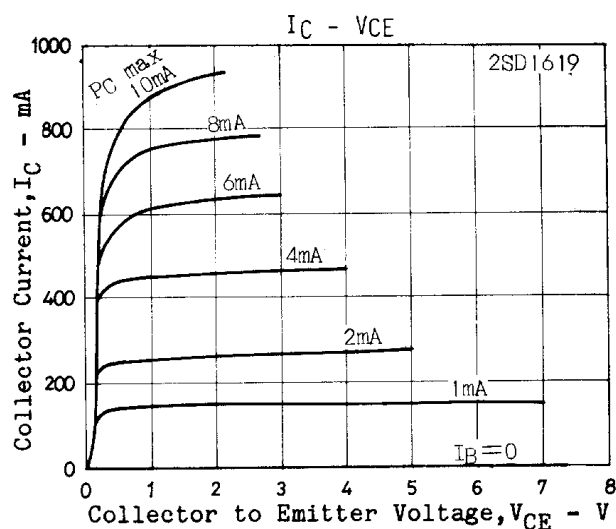
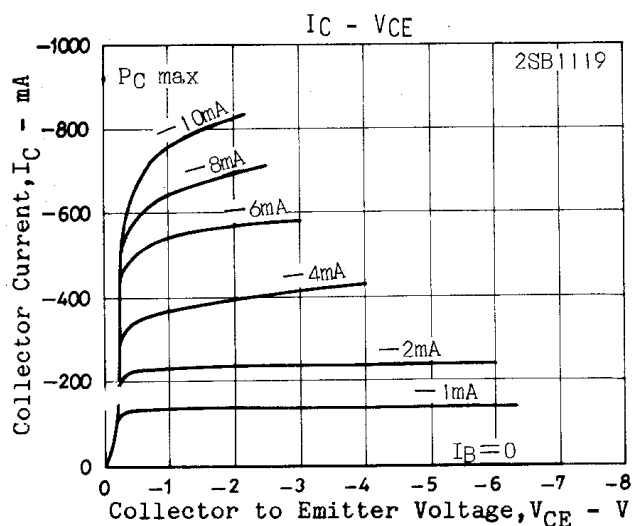
Marking 2SB1119 : BB

2SD1619 : DB

CLASSIFICATION OF $h_{FE(1)}$

Rank	R	S	T	U
Range	100-200	140-280	200-400	280-560

Electrical characteristic curves



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