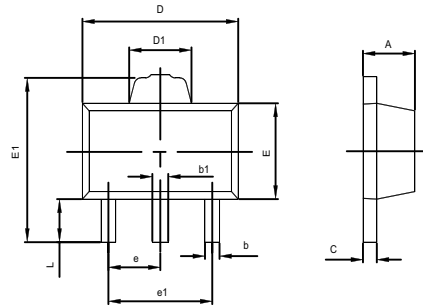


RoHS Compliant Product

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	4.800	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

***Features**

Collector Current -2A
Low power dissipation 0.5W

***Structure**

Epitaxial planar type.
PNP silicon transistor.

ELECTRICAL CHARACTERISTICS (Tamb=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -100 \mu A, I_E = 0$	-50		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -10mA, I_B = 0$	-50		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -100 \mu A, I_C = 0$	-5		V
Collector cut-off current	I_{CBO}	$V_{CB} = -50 V, I_E = 0$		-0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = -5 V, I_C = 0$		-0.1	μA
DC current gain	h_{FE1}	$V_{CE} = -2V, I_C = -0.5A$	70	240	
	h_{FE2}	$V_{CE} = -2V, I_C = -2A$	20		
Collector-emitter saturation voltage	V_{CEsat}	$I_C = -1A, I_B = -0.05A$		-0.5	V
Base-emitter saturation voltage	V_{BEsat}	$I_C = -1A, I_B = -0.05A$		-1.2	V
Transition frequency	f_T	$V_{CE} = -2V, I_C = -0.5A$	100		MHz

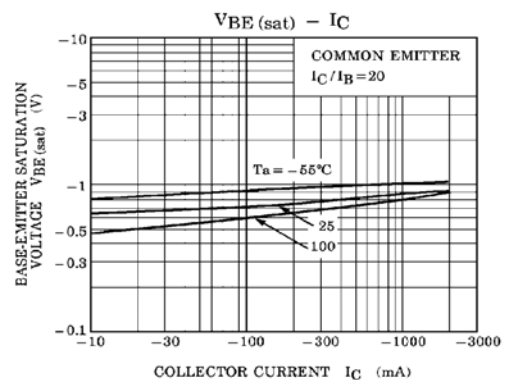
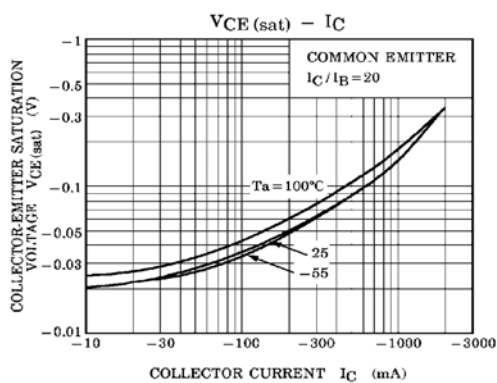
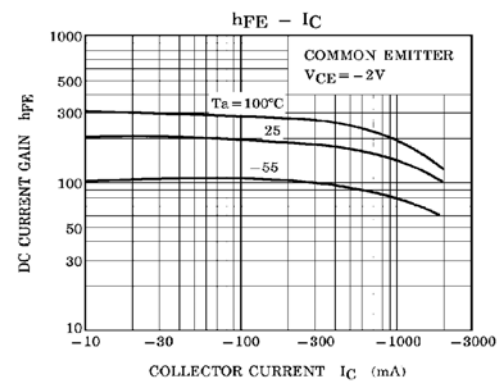
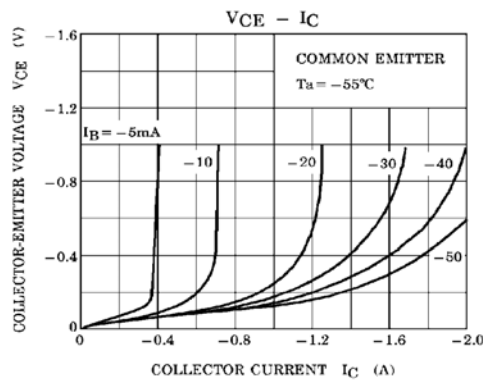
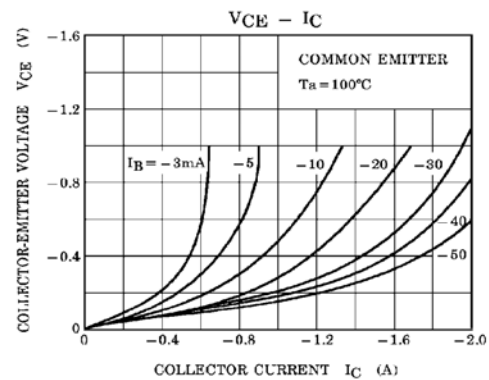
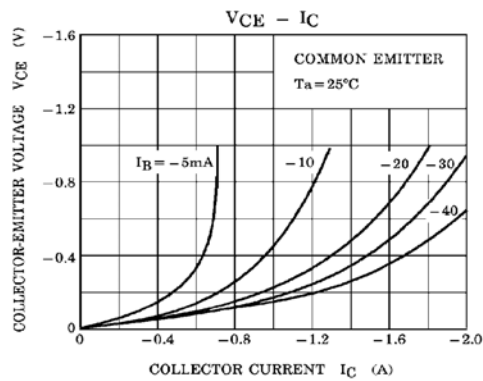
CLASSIFICATION OF h_{FE}

Rank	0	Y
Range	70-140	120-240

Marking	NO, NY
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Typical Characteristic

2SA1213



Typical Characteristics

2SA1213

