

#### **Features**

- Complementary to 2SC2873
- Small Flat Package
- Power Amplifier and Switching Applications
- Low Saturation Voltage
- High Speed Switching Time

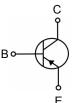
1.BASE

2.COLLECTOR



3.EMITTER

### SO1-89



## **Package Marking and Ordering Information**

Product ID	Pack	Marking	Qty(PCS)
2SA1213	SOT-89	NY	1000

# Maxmim Ratings (Ta=25 unless otherwise noted)

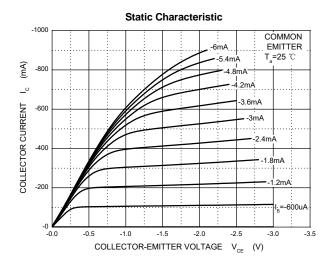
Symbol	Parameter	Value	Unit
V <sub>CBO</sub>	Collector-Base Voltage	-50	V
V <sub>CEO</sub>	Collector-Emitter Voltage	-50	V
V <sub>EBO</sub>	Emitter-Base Voltage	-5	V
Ic	Collector Current	-2	Α
Pc	Collector Power Dissipation	500	mW
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	250	°C/W
T <sub>J</sub> ,T <sub>stg</sub>	Operation Junction and Storage Temperature Range	-55~+150	$^{\circ}$

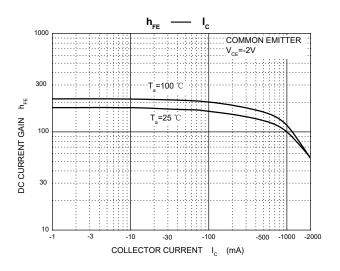
## Electrcal Charcteristics (Ta=25 unless otherwise specified)

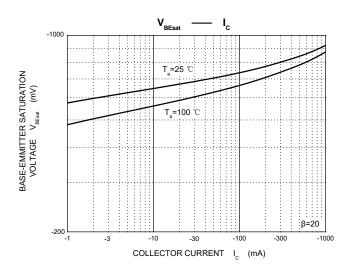
Parameter	Symbol	Test conditions Min Typ		Тур	Max	Unit
Collector-base breakdown voltage	V <sub>(BR)CBO</sub>	I <sub>C</sub> = -0.1mA,I <sub>E</sub> =0	-50			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	<sub>CEO</sub> I <sub>C</sub> =-10mA,I <sub>B</sub> =0				V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I <sub>E</sub> =-0.1mA,I <sub>C</sub> =0	-5			V
Collector cut-off current	I <sub>CBO</sub>	V <sub>CB</sub> =-50V,I <sub>E</sub> =0			-100	nA
Emitter cut-off current	I <sub>EBO</sub>	V <sub>EB</sub> =-5V,I <sub>C</sub> =0			-100	nA
DC comment main	h <sub>FE</sub>	V <sub>CE</sub> =-2V, I <sub>C</sub> =-500mA	70		240	
DC current gain		V <sub>CE</sub> =-2V, I <sub>C</sub> =-2A	20			
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> =-1A,I <sub>B</sub> =-50mA			-0.5	V
Base-emitter saturation voltage	V <sub>BE(sat)</sub>	I <sub>C</sub> =-1A,I <sub>B</sub> =-50mA			-1.2	V
Collector output capacitance	C <sub>ob</sub>	V <sub>CB</sub> =-10V,I <sub>E</sub> =0, f=1MHz 40			pF	
Transition frequency	f <sub>T</sub>	Vc=-2V,Ic= -0.5A	100			MHz

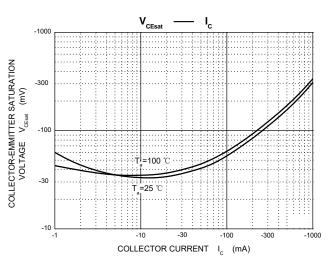


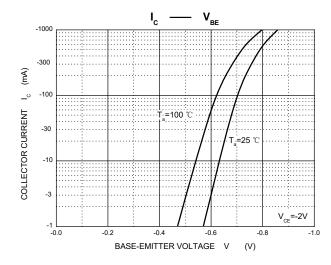
### **Typical Characteristics**

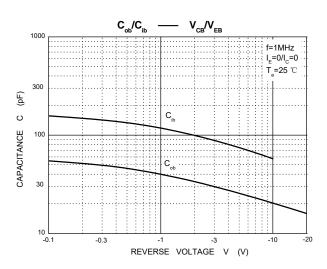


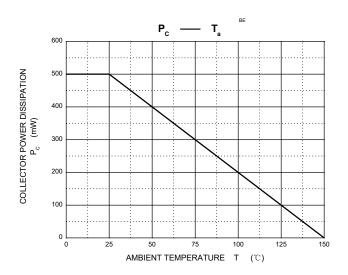




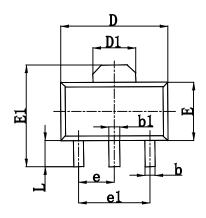


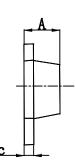






# **SOT-89 Package Outline Dimensions**





Symbol	Dimensions In Millimeters		Dimensions In Inches		
Symbol	Min	Max	Min	Max	
Α	1.400	1.600	0.055	0.063	
b	0.320	0.520	0.013	0.020	
b1	0.400	0.580	0.016	0.023	
С	0.350	0.440	0.014	0.017	
D	4.400	4.600	0.173	0.181	
D1	1.550 REF.		0.061 REF.		
E	2.300	2.600	0.091	0.102	
E1	3.940	4.250	0.155	0.167	
е	1.500 TYP.		0.060 TYP.		
e1	3.000 TYP.		0.118 TYP.		
L	0.900	1.200	0.035	0.047	



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