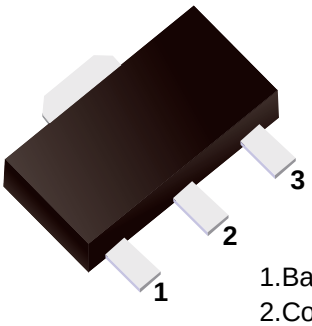
■ NPN Transistors



1.Base
2.Collector
3.Emitter

■ **Simplified outline(SOT-89)**

■ Features

- Small Flat Package
- High Speed Switching Time
- Low Collector-emitter saturation voltage
- Complementary to 2SA1213

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CBO}	50	V
Collector - Emitter Voltage	V_{CEO}	50	
Emitter - Base Voltage	V_{EBO}	5	
Collector Current - Continuous	I_C	2	A
Collector Power Dissipation	P_C	500	mW
Thermal Resistance From Junction To Ambient	$R_{\theta JA}$	250	℃/W
Junction Temperature	T_J	150	℃
Storage Temperature Range	T_{stg}	-55 to 150	

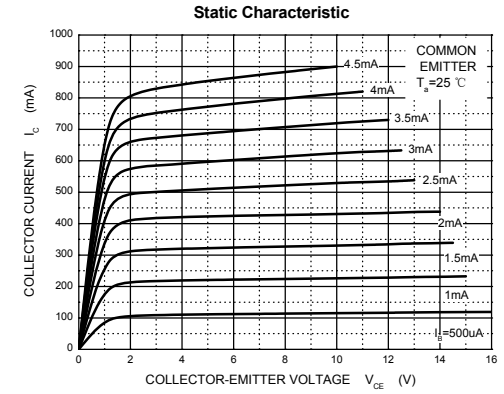
■ Electrical Characteristics Ta = 25℃

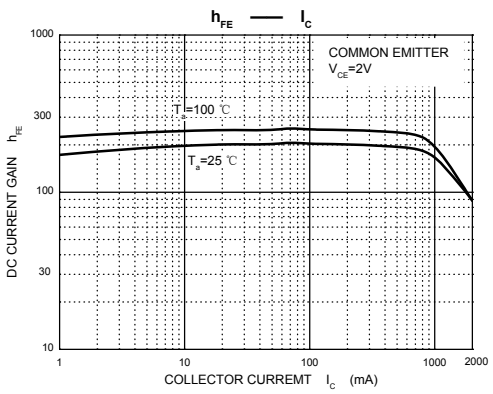
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V_{CBO}	I_C= 100uA， I_E= 0	50			V
Collector- emitter breakdown voltage	V_{CEO}	I_C= 1mA， I_B= 0	50			
Emitter - base breakdown voltage	V_{EBO}	I_E= 100uA， I_C= 0	5			
Collector-base cut-off current	I_{CBO}	V_{CB}= 50V , I_E= 0			0.1	uA
Emitter cut-off current	I_{EBO}	V_{EB}= 5V , I_C=0			0.1	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=1A, I_B=50mA			0.5	V
Base - emitter saturation voltage	$V_{BE(sat)}$	I_C=1A, I_B=50mA			1.2	
DC current gain	h_{FE}	V_{CE}= 2V, I_C= 0.5A	70		240	
		V_{CE}= 2V, I_C= 2A	20			
Collector output capacitance	C_{ob}	V_{CB}= 10V, I_E= 0,f=1MHz		30		pF
Transition frequency	f_T	V_{CE}= 2V, I_C= 0.5A		120		MHz

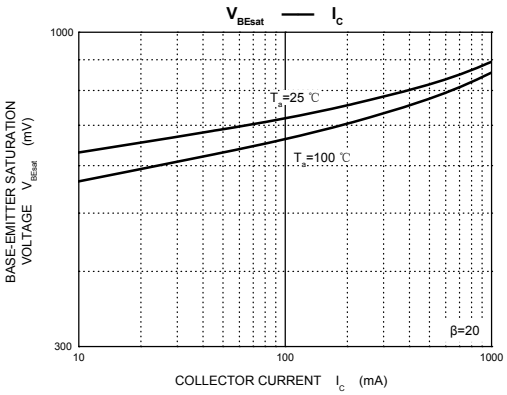
■ Classification of $h_{fe(1)}$

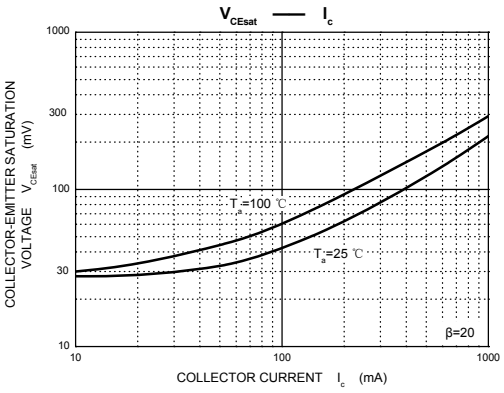
Type	2SC2873-O	2SC2873-Y
Range	70-140	120-240
Marking	MO	MY

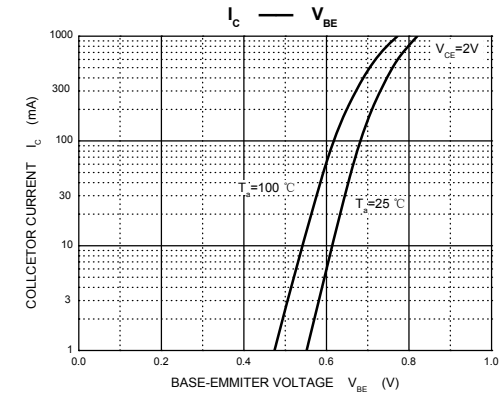
■ Typical Characterisitics

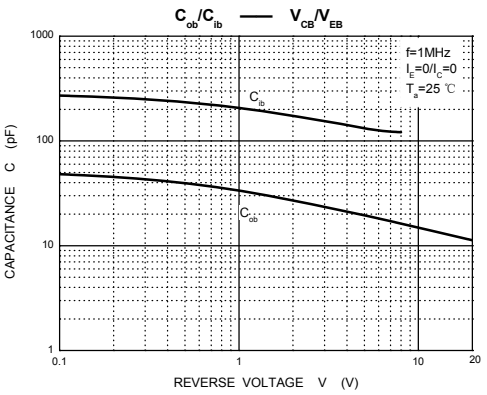


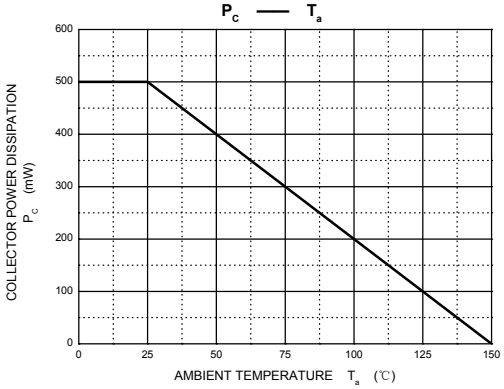




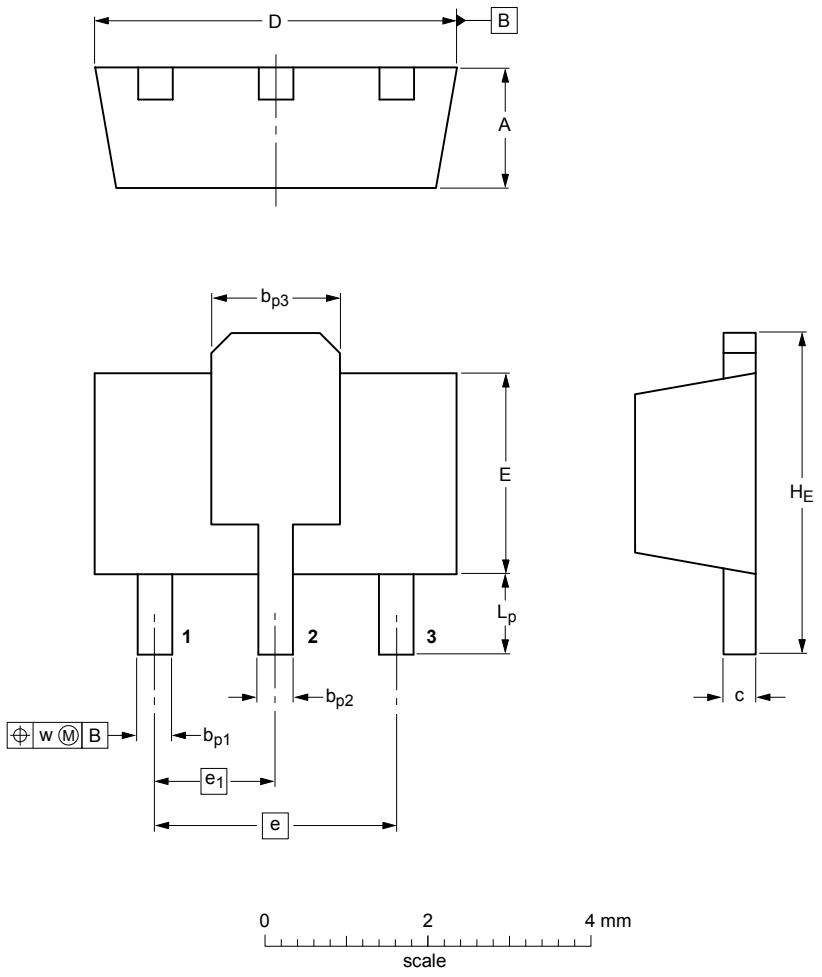








Package Outline SOT-89



DIMENSIONS (mm are the original dimensions)

UNIT	A	b_{p1}	b_{p2}	b_{p3}	c	D	E	e	e_1	H_E	L_p	w
mm	1.6 1.4	0.48 0.35	0.53 0.40	1.8 1.4	0.44 0.23	4.6 4.4	2.6 2.4	3.0	1.5	4.25 3.75	1.2 0.8	0.13

Summary of Packing Options

Package	Package Description	Packing Quantity	Industry Standard
SOT-89	Tape/Reel,7"reel	1000	EIA-481-1