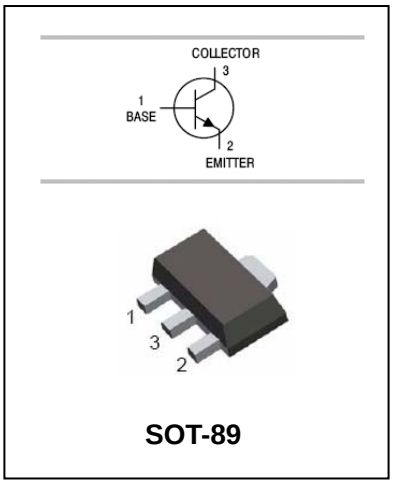
Silicon NPN Epitaxial Transistor **2SC2873**

FEATURES

Lead-free

- Small flat package.
- Low saturation voltage $V_{CE(sat)}$=-0.5V
- High speed switching time
- Complementary to 2SA1213



SOT-89

APPLICATIONS

- Power amplifier
- Power Switching

ORDERING INFORMATION

Type No.	Marking	Package Code
2SC2873	MO/MY	SOT-89

MAXIMUM RATING @ Ta=25℃ unless otherwise specified

Symbol	**Parameter**	**Value**	**Units**
V_{CBO}	Collector-Base Voltage	50	V
V_{CEO}	Collector-Emitter Voltage	50	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current -Continuous	2	A
I_B	Base Current	0.4	A
P_C	Collector Power Dissipation	500	mW
P_C	Collector Power Dissipation(Note 1)	1000	mW
T_j,T_{stg}	Junction and Storage Temperature	-55 to +150	℃

Note 1:Mounted on a ceramic substrate(250mm^2*0.8t)

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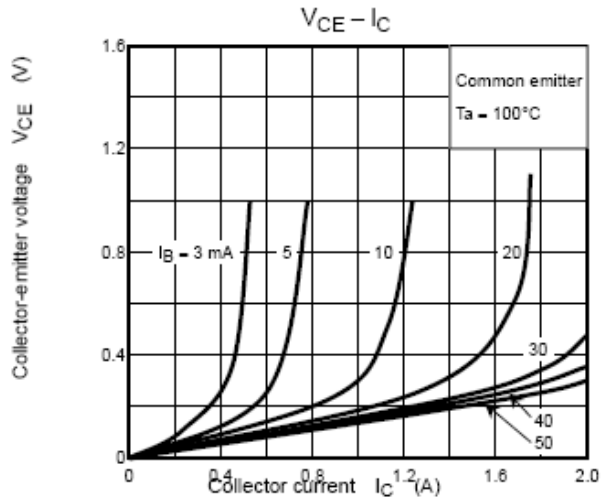
ELECTRICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

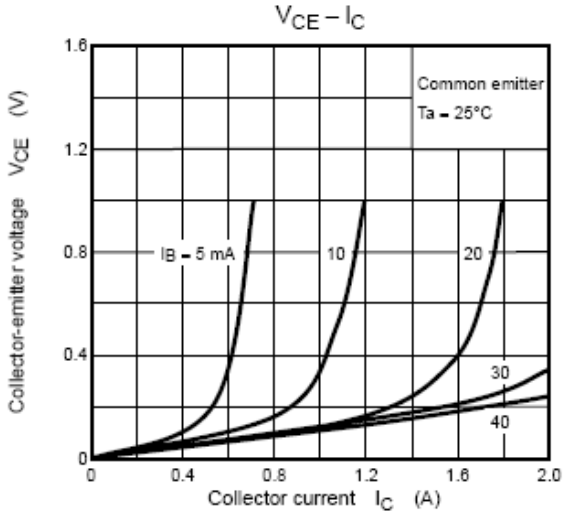
Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=10mA, I_B=0	50			V
Collector cut-off current	I_{CBO}	V_{CB}=50V,I_E=0			0.1	μA
Emitter cut-off current	I_{EBO}	V_{EB}=5V,I_C=0			0.1	μA
DC current gain	h_{FE}	V_{CE}=2V,I_C=500mA	70		240	
		V_{CE}=2V,I_C=2A	20			
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	V
Transition frequency	f_T	V_{CE}=2V,I_c=0.5A		120		MHz
Collector output capacitance	C_{ob}	V_{CB}=10V,I_E=0,f=1MHz		30		pF

CLASSIFICATION OF h_{FE}

Rank	O	Y
Range	70-140	120-240
MARKING	MO	MY

TYPICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified





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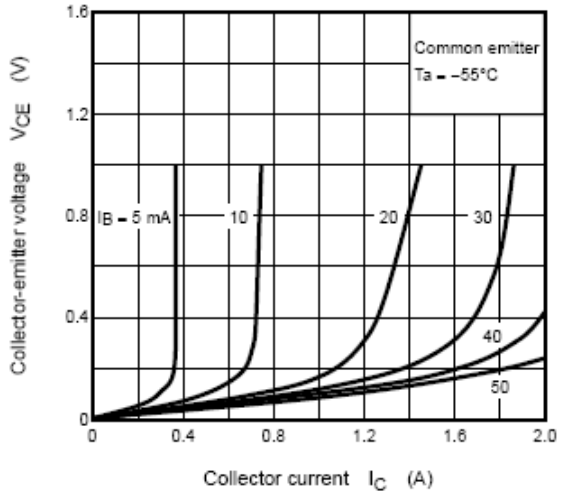
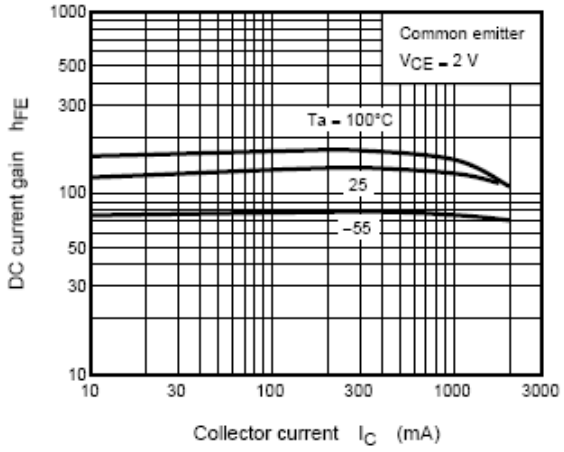
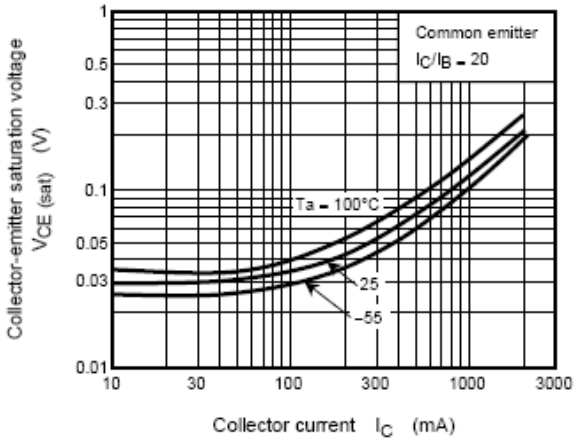
$V_{CE} - I_C$



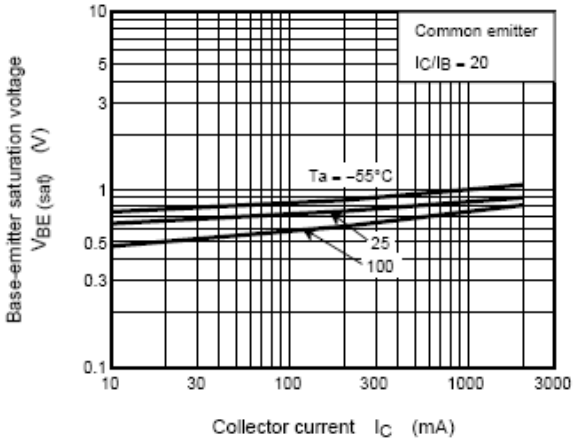
$h_{FE} - I_C$



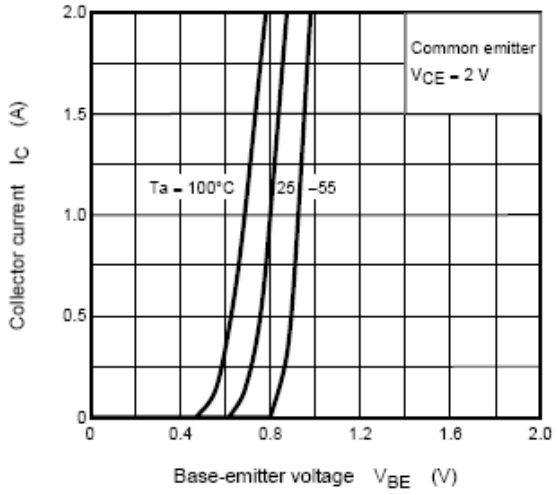
$V_{CE\ (sat)} - I_C$



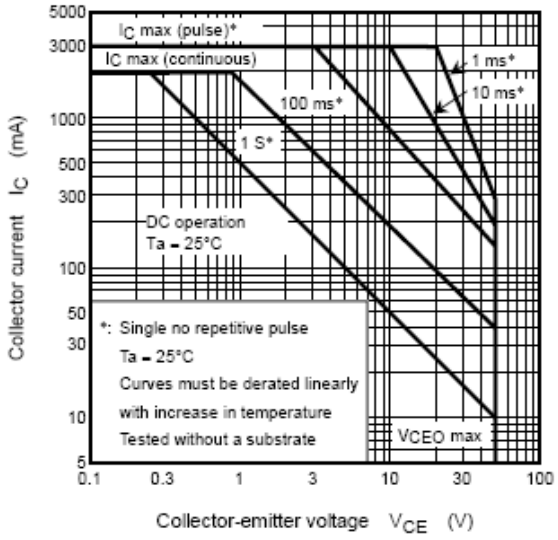
$V_{BE\ (sat)} - I_C$



$I_C - V_{BE}$



Safe Operating Area



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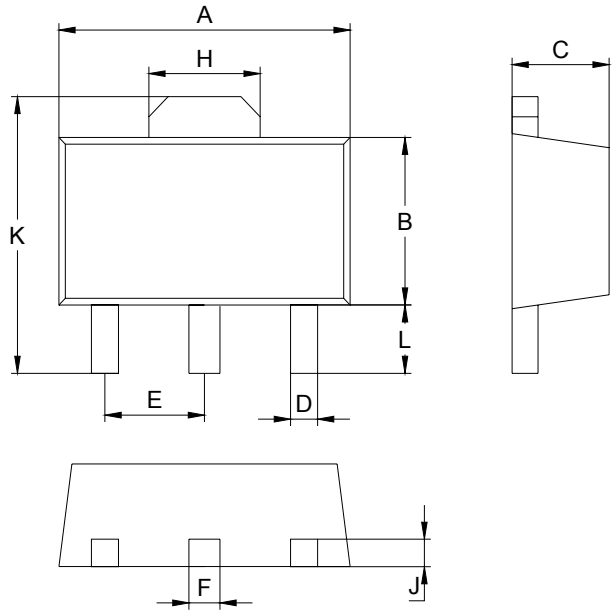
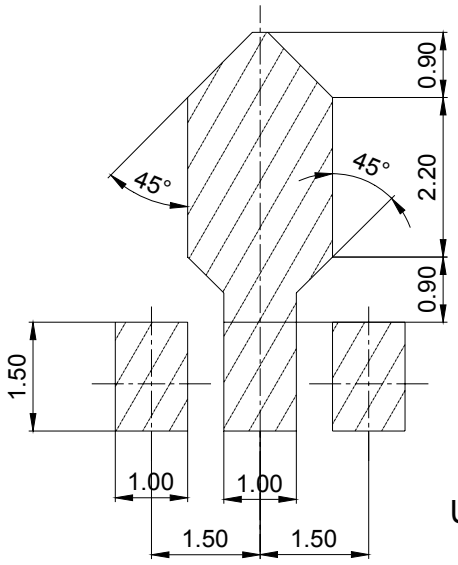
PACKAGE OUTLINE

Plastic surface mounted package SOT-89



SOT-89		
Dim	Min	Max
A	4.30	4.70
B	2.25	2.65
C	1.50 Typical	
D	0.40 Typical	
E	1.40	1.60
F	0.48 Typical	
H	1.60	1.80
J	0.40 Typical	
L	0.90	1.10
K	3.95	4.35
All Dimensions in mm		

SOLDERING FOOTPRINT



Unit:mm

PACKAGE INFORMATION

Device	Package	Shipping
2SC2873	SOT-89	1000/Tape&Reel