

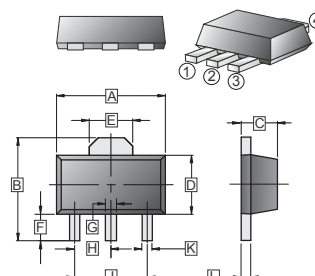
RoHS Compliant Product

A suffix of "-C" specifies halogen & lead-free

## FEATURES

- Small Flat Package.
- Low Collector-Emitter Saturation Voltage.

## SOT-89



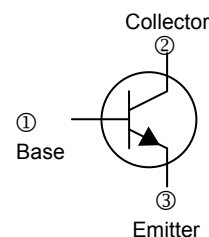
## CLASSIFICATION OF $h_{FE}$

Product-Rank	2SC4375-O	2SC4375-Y
Range	100~200	160~320
Marking	GO	GY

## PACKAGE INFORMATION

Package	MPQ	LeaderSize
SOT-89	1K	7' inch

REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	4.40	4.60	G	0.40	0.58
B	3.94	4.25	H	1.50	TYP
C	1.40	1.60	J	3.00	TYP
D	2.30	2.60	K	0.32	0.52
E	1.50	1.70	L	0.35	0.44
F	0.89	1.20			



## ABSOLUTE MAXIMUM RATINGS ( $T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	$V_{CBO}$	30	V
Collector to Emitter Voltage	$V_{CEO}$	30	V
Emitter to Base Voltage	$V_{EBO}$	5	V
Continuous Collector Current	$I_C$	1.5	A
Collector Power Dissipation	$P_C$	500	mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	250	$^\circ\text{C} / \text{W}$
Junction, Storage Temperature	$T_J, T_{STG}$	150, -55~150	$^\circ\text{C}$

## ELECTRICAL CHARACTERISTICS ( $T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Min	Typ	Max	Unit	Test condition
Collector to Base Breakdown Voltage	$V_{(BR)CBO}$	30	-	-	V	$I_C=1\text{mA}, I_E=0$
Collector to Emitter Breakdown Voltage	$V_{(BR)CEO}$	30	-	-	V	$I_C=10\text{mA}, I_B=0$
Emitter to Base Breakdown Voltage	$V_{(BR)EBO}$	5	-	-	V	$I_E=1\text{mA}, I_C=0$
Collector Cut-Off Current	$I_{CBO}$	-	-	0.1	$\mu\text{A}$	$V_{CB}=30\text{V}, I_E=0$
Emitter Cut-Off Current	$I_{EBO}$	-	-	0.1	$\mu\text{A}$	$V_{EB}=5\text{V}, I_C=0$
DC Current Gain	$h_{FE}$	100	-	320		$V_{CE}=2\text{V}, I_C=500\text{mA}$
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	-	-	2	V	$I_C=1.5\text{A}, I_B=30\text{mA}$
Base to emitter Voltage	$V_{BE}$	-	-	1	V	$V_{CE}=2\text{V}, I_C=500\text{mA}$
Transition Frequency	$f_T$	-	120	-	MHz	$V_{CE}=2\text{V}, I_C=500\text{mA}$
Collector Output Capacitance	$C_{ob}$	-	-	40	pF	$V_{CB}=10\text{V}, I_E=0, f=1\text{MHz}$