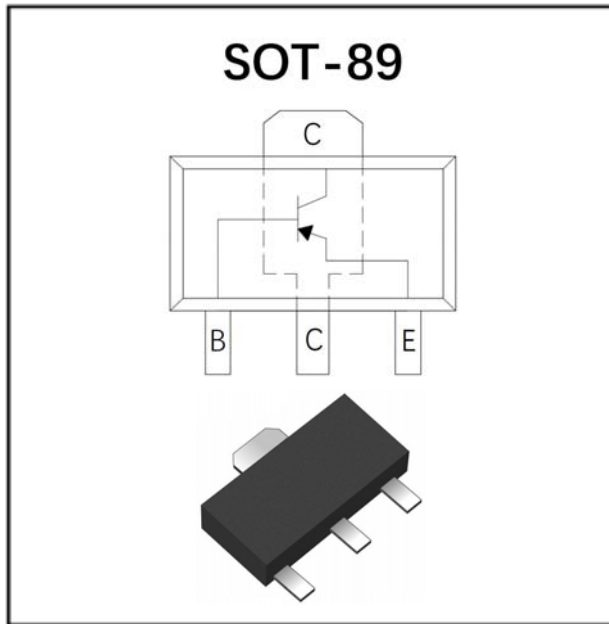


PNP Power Transistor



Features

- Epoxy meets UL-94 V-0 flammability rating
- Halogen free available upon request by adding suffix "HF"
- Moisture Sensitivity Level 1

Mechanical Data

- **Package:** SOT-89
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant, halogen-free
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Marking:** AR375-R

■Maximum Ratings (Ta=25°C unless otherwise noted)

Item	Symbol	Unit	Conditions	Value
Minimum Collector-Emitter Voltage	V_{CEO}	V	$I_C = -1mA, I_B = 0$	-120
Minimum Collector-Base Voltage	V_{CBO}	V	$I_C = -100\mu A, I_E = 0$	-120
Minimum Emitter-Base Voltage	V_{EBO}	V	$I_E = -100\mu A, I_C = 0$	-6
Collector Current	I_C	A		-1.5
Collector Power Dissipation	$P_C^{(1)}$	W		1
Thermal Resistance From Junction To Ambient	$R_{\theta JA}^{(1)}$	°C/W		125
Thermal resistance, junction-to-case	$R_{\theta JC}^{(1)}$	°C/W		100
Operation Junction Temperature	T_j	°C		-55 to +150
Storage Temperature	T_{stg}	°C		-55 to +150

Note: (1) Device mounted on an FR4 Printed-Circuit Board (PCB), 35 μm single-sided copper, tin-plated and standard footprint



2SAR375-R

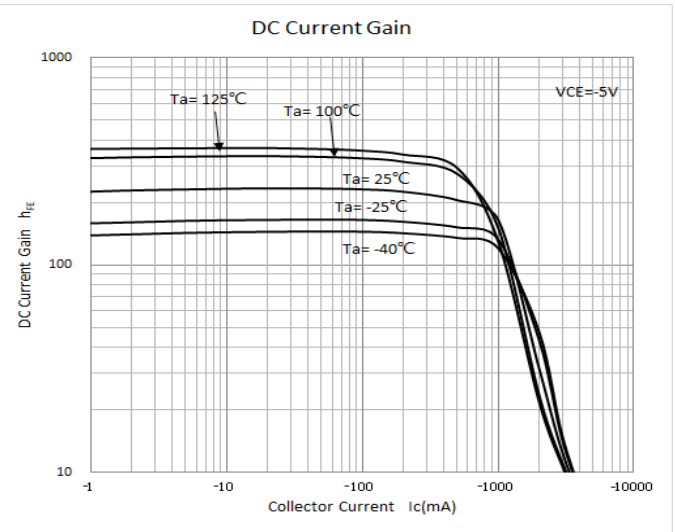
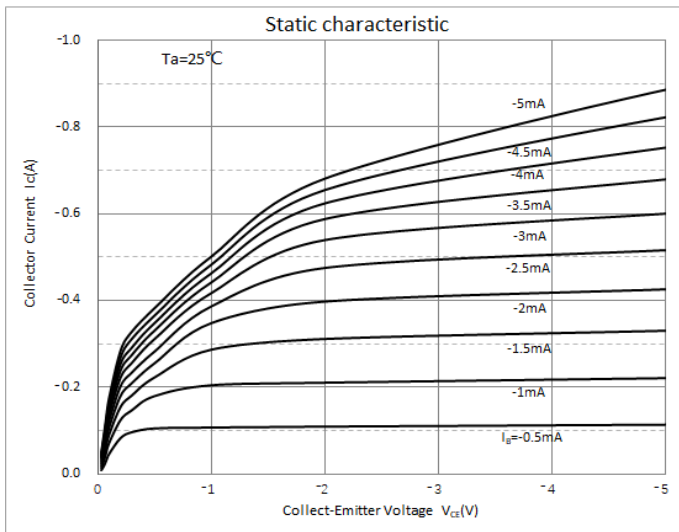
■Electrical Characteristics (Ta=25°C unless otherwise noted)

Item	Symbol	Unit	Conditions	Min	Typ	Max
Collector-Emitter Voltage	V_{CEO}	V	$I_C=-1mA, I_B=0$	-120		
Collector-Base Voltage	V_{CBO}	V	$I_C=-100\mu A, I_E=0$	-120		
Emitter-Base Voltage	V_{EBO}	V	$I_E=-100\mu A, I_C=0$	-6		
Collector-base Cut-off Current	I_{CBO}	μA	$V_{CB}=-100V$			-1
Base-emitter Cut-off Current	I_{EBO}	μA	$V_{EB}=-4V$			-1
DC Current Gain	h_{FE}		$I_C=-200mA, V_{CE}=-5V$	180		390
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	mV	$I_C=-800mA, I_B=-80mA$			-320
Collector Capacitance	C_{ob}	pF	$V_{CB}=-10V, I_E=0A, f=1MHz$		25	

■Ordering Information (Example)

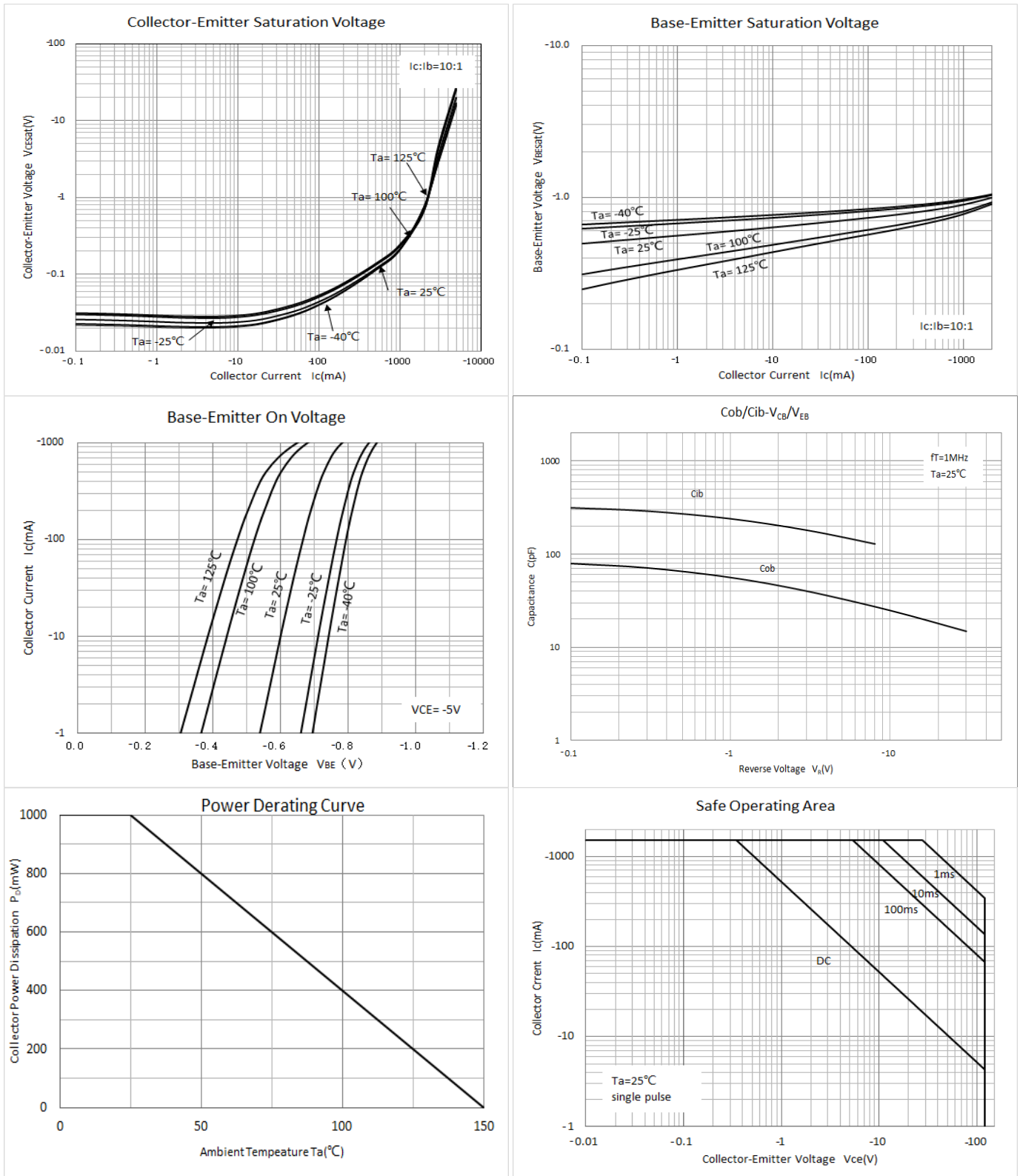
PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
2SAR375-R	F2	Approximate 0.055	1000	8000	32000	7" reel

■Characteristics





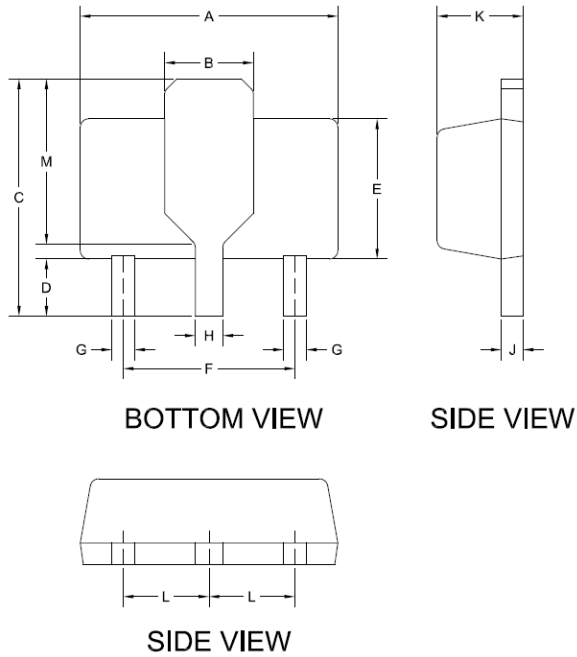
2SAR375-R





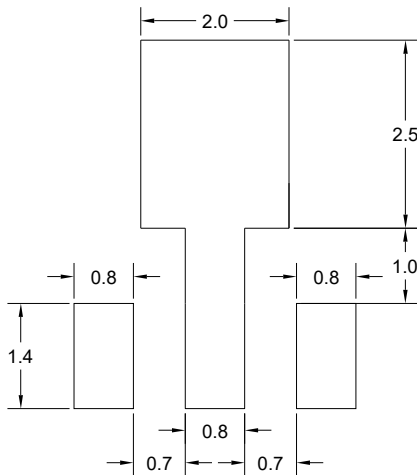
2SAR375-R

■SOT-89 Package Outline Dimensions



DIM	DIMENSIONS			
	INCHES		MM	
	MIN.	MAX.	MIN.	MAX.
A	0.173	0.181	4.400	4.600
B	0.061 TYP.		1.550 TYP.	
C	0.155	0.167	3.940	4.250
D	0.031	0.047	0.800	1.200
E	0.094	0.102	2.400	2.600
F	0.118 TYP.		3.00 TYP.	
G	0.014	0.019	0.360	0.480
H	0.017	0.022	0.440	0.560
J	0.014	0.017	0.350	0.440
K	0.055	0.063	1.400	1.600
L	0.059 TYP.		1.500 TYP.	
M	0.108 TYP.		2.750 TYP.	

■SOT-89 Suggested Pad Layout



UNIT:MM



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