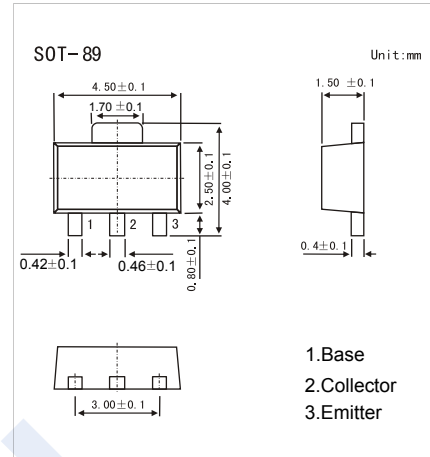


NPN Transistors

2SC4375-HF

■ Features

- Collector Current Capability $I_c=1.5\text{ A}$
- Collector Emitter Voltage $V_{CE0}=30\text{ V}$
- Pb-Free Package May be Available. The G-Suffix Denotes a Pb-Free Lead Finish



■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CB0}	30	V
Collector - Emitter Voltage	V_{CE0}	30	
Emitter - Base Voltage	V_{EB0}	5	
Collector Current - Continuous	I_c	1.5	A
Collector Power Dissipation	P_c	500	mW
Thermal Resistance From Junction To Ambient	$R_{\theta JA}$	250	$^\circ\text{C}/\text{W}$
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55 to 150	

■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V_{CB0}	$I_c = 1\text{ mA}, I_E = 0$	30			V
Collector-emitter breakdown voltage	V_{CE0}	$I_c = 10\text{ mA}, I_B = 0$	30			
Emitter - base breakdown voltage	V_{EB0}	$I_E = 1\text{ mA}, I_c = 0$	5			
Collector-base cut-off current	I_{CB0}	$V_{CB} = 30\text{ V}, I_E = 0$			0.1	μA
Emitter cut-off current	I_{EB0}	$V_{EB} = 5\text{ V}, I_c = 0$			0.1	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_c = 1.5\text{ A}, I_B = 30\text{ mA}$			2	V
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_c = 1.5\text{ A}, I_B = 30\text{ mA}$			1.2	
Base - emitter voltage	V_{BE}	$V_{CE} = 2\text{ V}, I_c = 500\text{ mA}$			1	
DC current gain	h_{FE}	$V_{CE} = 2\text{ V}, I_c = 500\text{ mA}$	100		320	
Collector output capacitance	C_{ob}	$V_{CB} = 10\text{ V}, I_E = 0, f = 1\text{ MHz}$			40	pF
Transition frequency	f_T	$V_{CE} = 2\text{ V}, I_c = 0.5\text{ A}$		120		MHz

■ Classification of h_{FE}

Type	2SC4375-O-HF	2SC4375-Y-HF
Range	100-200	160-320
Marking	GO _F	GY _F