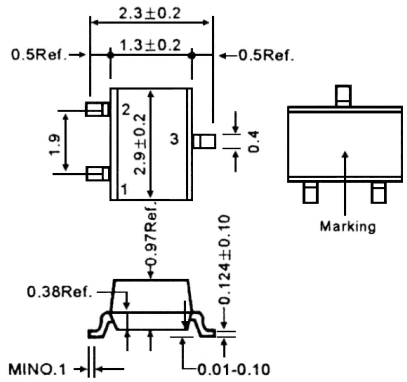
2SC3875
NPN Epitaxial Silicon Transistor

GENERAL PURPOSE TRANSISTOR

- Collector-Emitter Voltage: V_{CEO} = 50V
- Collector Dissipation: P_C = 150mW

SOT-23



Tolerance : 0.1mm
Dimensions (Unit : mm)

1. Emitter 2. Base 3. Collector

Absolute Maximum Ratings (TA=25°C)

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V_{CBO}	60	V
Collector-Emitter Voltage	V_{CEO}	50	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current	I_C	150	mA
Collector Dissipation	P_C	150	mW
Junction Temperature	T_J	150	°C
Storage Temperature	T_{STG}	-55~+150	°C

Electrical Characteristics (TA=25°C)

Characteristic	Symbol	Test Conditions	Min	Max	Unit
Collector-Base Breakdown Voltage	BV_{CBO}	I_C= 100μA, I_E= 0	60		V
Collector-Emitter Breakdown Voltage	BV_{CEO}	I_C= 1mA, I_B= 0	50		V
Emitter-Base Breakdown Voltage	BV_{EBO}	I_E= 100μA, I_C= 0	5		V
Collector Cut-off Current	I_{CBO}	V_{CB}= 60V, I_E= 0		0.1	μA
Collector Cut-off Current	I_{CEO}	V_{CE}= 45V, I_B= 0		0.2	μA
Emitter Cut-off Current	I_{EBO}	V_{EB}= 5V, I_C= 0		0.1	μA
DC Current Gain	h_{FE}	V_{CE}= 6V, I_C= 2mA	70	700	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C= 100mA, I_B= 10mA		0.25	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	I_C= 100mA, I_B= 10mA		1	V
Transition Frequency	f_T	V_{CE}= 10V, I_C= 1mA			
		f= 100MHz	80		MHz

h_{FE} CLASSIFICATION

Classification	G	Y	GR	BL
h_{FE}	70-140	120-240	200-400	350-700

Device Marking

2SC3875-G=ALO ; 2SC3875-Y=ALY ; 2SC3875-GR=ALG ; 2SC3875-G=ALL

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