



Micro Commercial Components



Micro Commercial Components  
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**2SA1577-P**  
**2SA1577-Q**  
**2SA1577-R**

## Features

- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Ideally Suited for Automatic Insertion
- Untral Small Surface Mount Package
- Pb-Free Package are Vailable
- Epoxy meets UL 94 V-0 flammability rating
- Moisure Sensivity Level 1
- Halogen free available upon request by adding suffix "-HF"

### Maximum Ratings @ $T_a = 25^\circ\text{C}$ (unless otherwise noted)

Symbol	Parameter	Value	Unit
$I_C$	Collector Current	-0.5	A
$P_D$	Total Device Dissipation	0.2	W
$T_J$	Junction Temperature	150	$^\circ\text{C}$
$T_{STG}$	Storage Temperature Range	-55 to +150	$^\circ\text{C}$

### Electrical Characteristics @ $25^\circ\text{C}$ Unless Otherwise Specified

Symbol	Parameter	Min	Max	Unit
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#### OFF CHARACTERISTICS

$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage ( $I_C = -1\text{mA}, I_B = 0$ )	-32		V
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage ( $I_C = -100\mu\text{A}, I_E = 0$ )	-40		V
$V_{(BR)EBO}$	Collector-Base Breakdown Voltage ( $I_E = -100\mu\text{A}, I_C = 0$ )	-5.0		V
$I_{CBO}$	Collector-Base Cutoff Current ( $V_{CB} = -20\text{Vdc}, I_E = 0$ )		-1	$\mu\text{Adc}$
$I_{EBO}$	Emitter-Base Cutoff Current ( $V_{EB} = 4.0\text{Vdc}, I_C = 0$ )		-1	$\mu\text{Adc}$

#### ON CHARACTERISTICS

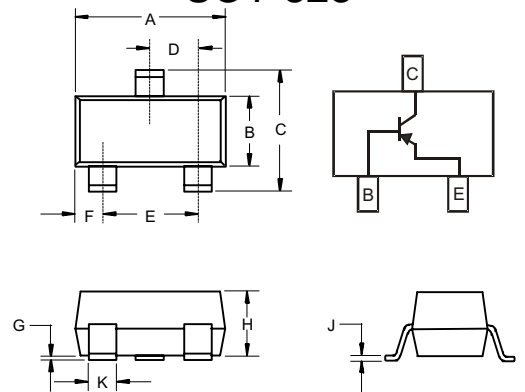
$h_{FE}$	DC Current Gain ( $I_C = -10\text{mA}, V_{CE} = -3.0\text{Vdc}$ )	82	390	
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage ( $I_C = -0.1\text{Adc}, I_B = -0.01\text{Adc}$ )		-0.4	Vdc
$f_T$	Transition Frequency ( $V_{CE} = -5\text{Vdc}, I_C = -20\text{mA}, f = 100\text{MHZ}$ )		200(typ)	MHZ
$C_{ob}$	Collector Output Capacitance ( $V_{CB} = -10\text{Vdc}, I_E = 0, f = 1\text{MHZ}$ )		7(typ)	PF

#### CLASSIFICATION OF $h_{FE}$

Rank	P	Q	R
Range	82-180	120-270	180-390
Marking	HP	HQ	HR

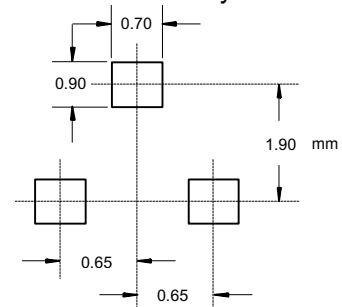
**PNP**  
**Gneral Purpose**  
**Transistors**

### SOT-323



DIM	DIMENSIONS				NOTE
	INCHES		MM		
A	.071	.087	1.80	2.20	
B	.045	.053	1.15	1.35	
C	.083	.096	2.10	2.45	
D	.026 Nominal		0.65Nominal		
E	.047	.055	1.20	1.40	
F	.012	.016	.30	.40	
G	.000	.004	.000	.100	
H	.035	.039	.90	1.00	
J	.004	.010	.100	.250	
K	.006	.016	.15	.40	

#### Suggested Solder Pad Layout





TM

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## Ordering Information :

Device	Packing
Part Number-TP	Tape & Reel; 3 Kpcs/Reel

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

### \*\*\*IMPORTANT NOTICE\*\*\*

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