

#### **Features**

- · Complement to 2SA1774-Q/R/S
- Halogen Free. "Green" Device (Note 1)
- · Moisture Sensitivity Level 1
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant. See Ordering Information)

# Maximum Ratings @ 25°C Unless Otherwise Specified

- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C

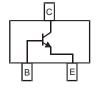
Parameter	Symbol	Rating	Unit
Collector-Base Voltage	V <sub>CBO</sub>	50	V
Collector-Emitter Voltage	V <sub>CEO</sub>	50	V
Emitter-Base Voltage	V <sub>EBO</sub>	5	V
Collector Current	I <sub>C</sub>	150	mA
Collector Power Dissipation	P <sub>C</sub>	150	mW

## Classification Of h<sub>FE</sub>

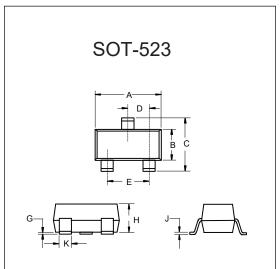
Rank	2SC4617-Q	2SC4617-R	2SC4617-S	
Range	120-270	180-390	270-560	
Marking	BQ	BR	BS	

Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

#### **Internal Structure**

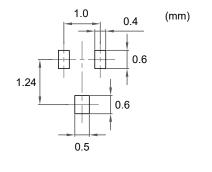


# NPN General Purpose Transistor



DIMENSIONS						
DIM INCHES		M	М	NOTE		
DIIVI	MIN	MAX	MIN	MAX	INOIL	
Α	0.059	0.067	1.50	1.70		
В	0.030	0.033	0.75	0.85		
С	0.057	0.069	1.45	1.75		
D	0.020		0.50		TYP.	
Е	0.035	0.043	0.90	1.10		
G	0.000	0.004	0.00	0.10		
Н	0.024	0.031	0.60	0.80		
J	0.004	0.008	0.10	0.20		
K	0.006	0.014	0.15	0.35		

### Suggested Solder Pad Layout





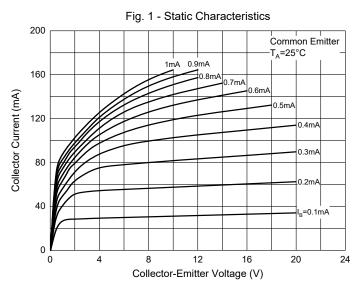
# Electrical Characteristics @ 25°C Unless Otherwise Specified

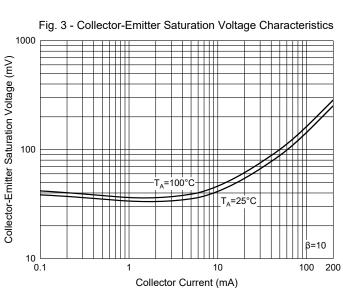
Parameter	Symbol	Min	Тур	Max	Units	Conditions
Collector-Base Breakdown Voltage	V <sub>(BR)CBO</sub>	50			V	$I_{C}=50\mu A, I_{E}=0$
Collector-Emitter Breakdown Voltage	V <sub>(BR)CEO</sub>	50			V	I <sub>C</sub> =1mA, I <sub>B</sub> =0
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	5			V	$I_E=50\mu A, I_C=0$
Collector-Base Cutoff Current	I <sub>CBO</sub>			0.5	μA	$V_{CB}$ =30V, $I_E$ =0
Emitter-Base Cutoff Current	I <sub>EBO</sub>			0.5	μA	$V_{EB}$ =4V, $I_C$ =0
DC Current Gain	h <sub>FE</sub>	120		560		V <sub>CE</sub> =6V, I <sub>C</sub> =1mA
Collector-Emitter Saturation Voltage	V <sub>CE(sat)</sub>			0.4	V	I <sub>C</sub> =50mA, I <sub>B</sub> =5mA
Transition Frequency	f <sub>T</sub>		180		MHz	V <sub>CE</sub> =12V, I <sub>C</sub> =2mA, f=100MHz
Output Capacitance	C <sub>ob</sub>		2	3.5	pF	V <sub>CB</sub> =12V, I <sub>E</sub> =0, f=1MHz

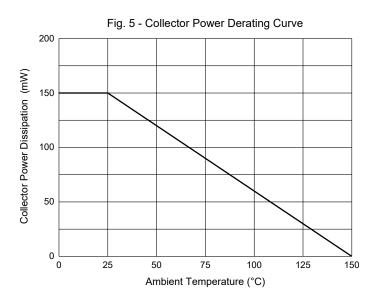
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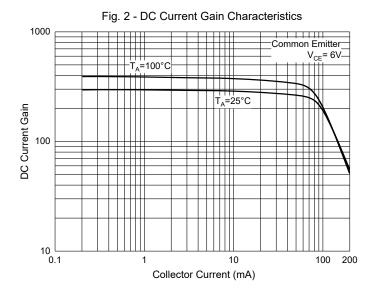


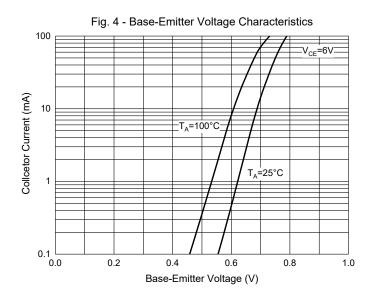
### **Curve Characteristics**













### **Ordering Information**

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

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