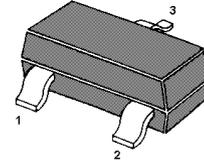


# MMBTSA1576

## PNP Silicon Epitaxial Planar Transistor

The transistor is subdivided into three groups Q, R and S according to its DC current gain.

On special request, these transistors can be manufactured in different pin configurations.



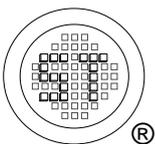
1.BASE 2.EMITTER 3.COLLECTOR  
TO-236 Plastic Package

### Features

- Excellent  $h_{FE}$  linearity

### Absolute Maximum Ratings ( $T_a = 25^\circ\text{C}$ )

|                           | Symbol     | Value       | Unit             |
|---------------------------|------------|-------------|------------------|
| Collector Base Voltage    | $-V_{CBO}$ | 60          | V                |
| Collector Emitter Voltage | $-V_{CEO}$ | 50          | V                |
| Emitter Base Voltage      | $-V_{EBO}$ | 6           | V                |
| Collector Current         | $-I_C$     | 150         | mA               |
| Power Dissipation         | $P_{tot}$  | 200         | mW               |
| Junction Temperature      | $T_j$      | 150         | $^\circ\text{C}$ |
| Storage Temperature Range | $T_{Stg}$  | -55 to +150 | $^\circ\text{C}$ |



**SEMTECH ELECTRONICS LTD.**



ISO/TS 18949:2008  
Certificate No. 160713009



ISO14001:2004  
Certificate No. 7116



ISO 9001:2008  
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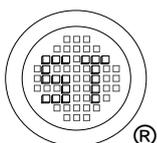
IECQ QC 080000  
Certificate No. PRC-HSPM-1463-1

Dated : 16/03/2015 Rev:01

# MMBTSA1576

## Characteristics at $T_{amb}=25\text{ }^{\circ}\text{C}$

|  | Symbol | Min.           | Typ. | Max. | Unit |               |
|--|--------|----------------|------|------|------|---------------|
| DC Current Gain<br>at $-V_{CE}=6\text{V}$ , $-I_C=1\text{mA}$                          | Q      | $h_{FE}$       | 120  | -    | 270  | -             |
|  | R      | $h_{FE}$       | 180  | -    | 390  | -             |
|  | S      | $h_{FE}$       | 270  | -    | 560  | -             |
| Collector Cutoff Current<br>at $-V_{CB}=60\text{V}$                                    |        | $-I_{CBO}$     | -    | -    | 0.1  | $\mu\text{A}$ |
| Emitter Cutoff Current<br>at $-V_{EB}=6\text{V}$                                       |        | $-I_{EBO}$     | -    | -    | 0.1  | $\mu\text{A}$ |
| Collector Saturation Voltage<br>at $-I_C=50\text{mA}$ , $-I_B=5\text{mA}$              |        | $-V_{CE(sat)}$ | -    | -    | 0.5  | V             |
| Collector Base Breakdown Voltage<br>at $-I_C=50\mu\text{A}$                            |        | $-V_{(BR)CBO}$ | 60   | -    | -    | V             |
| Collector Emitter Breakdown Voltage<br>at $-I_C=1\text{mA}$                            |        | $-V_{(BR)CEO}$ | 50   | -    | -    | V             |
| Emitter Base Breakdown Voltage<br>at $-I_E=50\mu\text{A}$                              |        | $-V_{(BR)EBO}$ | 6    | -    | -    | V             |
| Transition Frequency<br>at $-V_{CE}=12\text{V}$ , $-I_E=2\text{mA}$ , $f=30\text{MHz}$ |        | $f_T$          | -    | 140  | -    | MHz           |
| Output Capacitance<br>at $-V_{CB}=12\text{V}$ , $f=1\text{MHz}$                        |        | Cob            | -    | 4.0  | 5    | pF            |



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