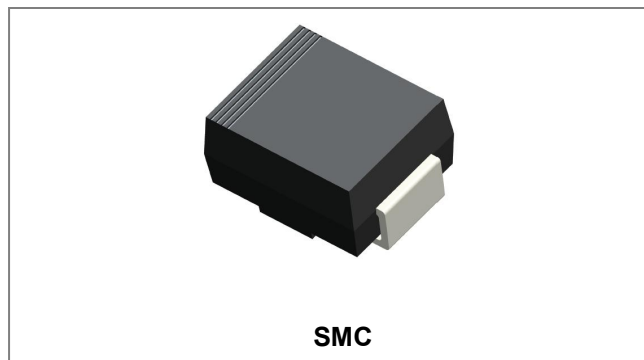


## SK156 SCHOTTKY RECTIFIER



### Features

- Small foot print, surface mountable
- Very low forward Voltage Drop
- High frequency operation
- Guard ring for enhanced ruggedness and long term reliability
- Terminals finish: 100% Pure Tin
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

### Circuit Diagram



### Applications

- Switching power supply
- Converters
- Free-Wheeling diodes
- Reverse battery protection

### Maximum Ratings (limiting values, at 25 °C unless otherwise specified)

| Characteristics                             | Symbol     | Condition                                                         | Max. | Units |
|---------------------------------------------|------------|-------------------------------------------------------------------|------|-------|
| Peak Repetitive Reverse Voltage             | $V_{RRM}$  | -                                                                 | 60   | V     |
| Working Peak Reverse Voltage                | $V_{RWM}$  |                                                                   |      |       |
| DC Blocking Voltage                         | $V_R$      |                                                                   |      |       |
| Average Rectified Forward Current           | $I_F (AV)$ | 50% duty cycle @ $T_a = 75^\circ\text{C}$ , rectangular wave form | 15   | A     |
| Peak One Cycle Non-Repetitive Surge Current | $I_{FSM}$  | 8.3ms, Half Sine pulse, $T_c = 25^\circ\text{C}$                  | 275  | A     |

### Electrical Characteristics:

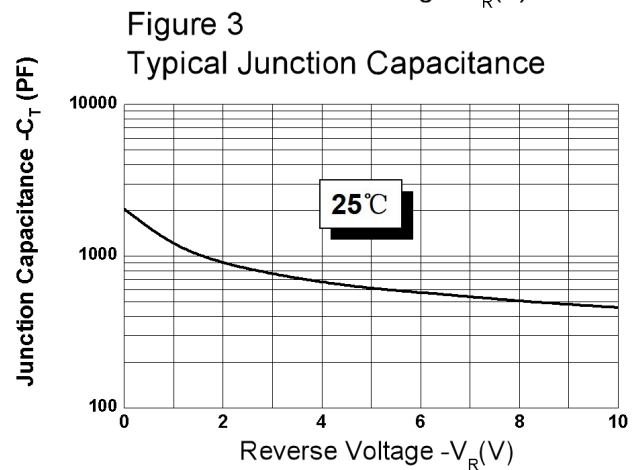
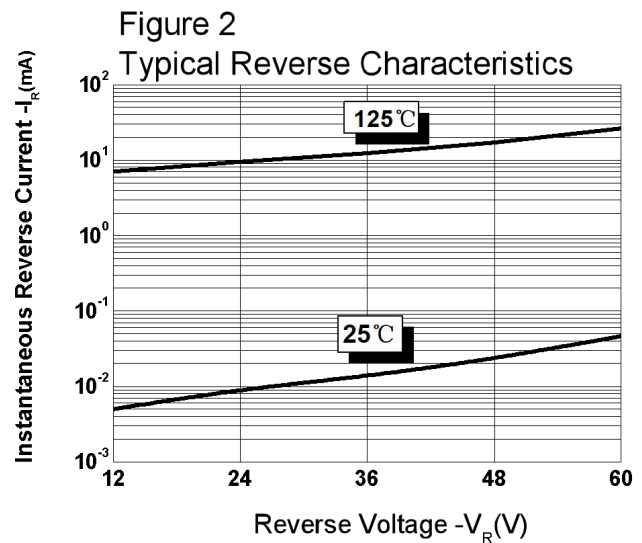
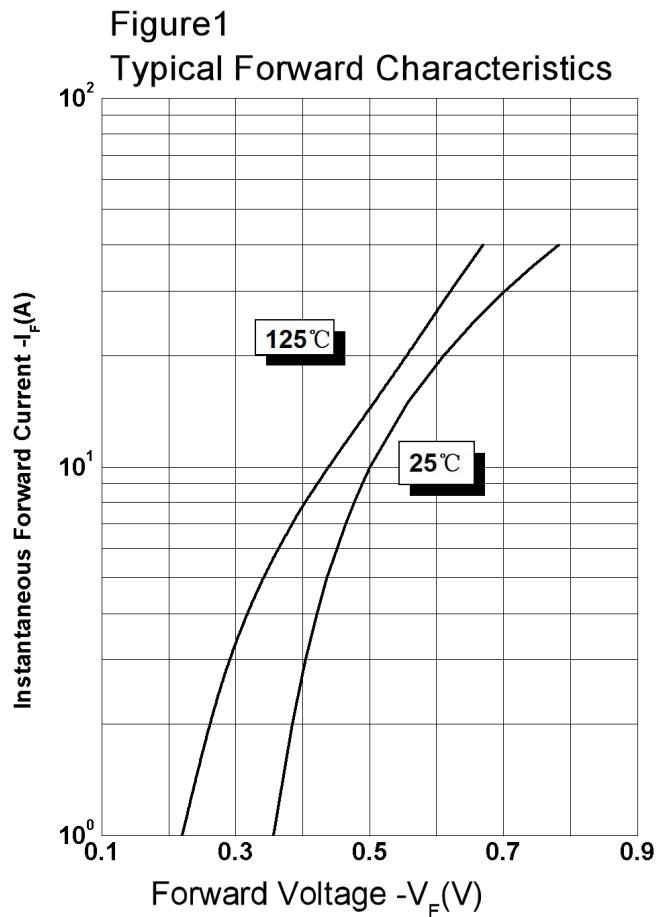
| Characteristics       | Symbol   | Condition                                                                | Typ. | Max. | Units |
|-----------------------|----------|--------------------------------------------------------------------------|------|------|-------|
| Forward Voltage Drop* | $V_{F1}$ | @ 15A, Pulse, $T_J = 25^\circ\text{C}$                                   | 0.56 | 0.65 | V     |
| Reverse Current*      | $I_{R1}$ | @ $V_R = \text{rated } V_R$ , $T_J = 25^\circ\text{C}$                   | 0.05 | 1    | mA    |
|                       | $I_{R2}$ | @ $V_R = \text{rated } V_R$ , $T_J = 125^\circ\text{C}$                  | 26   | 140  | mA    |
| Junction Capacitance  | $C_T$    | @ $V_R = 5\text{V}$ , $T_c = 25^\circ\text{C}$ , $f_{SIG} = 1\text{MHz}$ | 612  | 900  | pF    |

\* Pulse width < 300  $\mu\text{s}$ , duty cycle < 2%

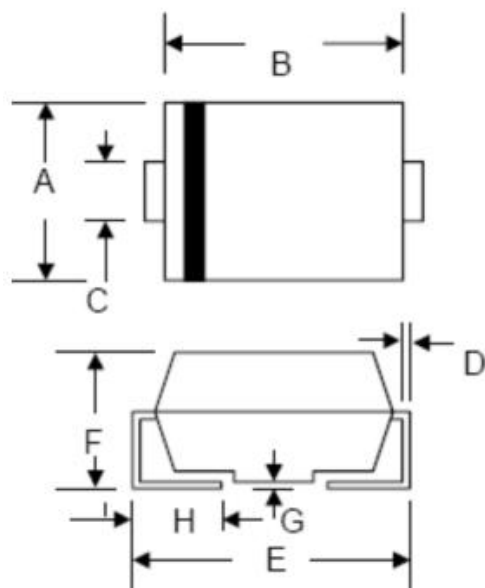
## Thermal-Mechanical Specifications:

| Characteristics                                | Symbol          | Condition    | Specification | Units |
|------------------------------------------------|-----------------|--------------|---------------|-------|
| Junction Temperature                           | $T_J$           | -            | -55 to +150   | °C    |
| Storage Temperature                            | $T_{stg}$       | -            | -55 to +150   | °C    |
| Typical Thermal Resistance Junction to Ambient | $R_{\theta JA}$ | DC operation | 55            | °C/W  |
| Approximate Weight                             | wt              | -            | 0.21          | g     |

## Ratings and Characteristics Curves



## Mechanical Dimensions SMC



| SYMBOL | Millimeters |       | Inches |       |
|--------|-------------|-------|--------|-------|
|        | Min.        | Max.  | Min.   | Max.  |
| A      | 5.59        | 6.22  | 0.220  | 0.245 |
| B      | 6.60        | 7.11  | 0.260  | 0.280 |
| C      | 2.75        | 3.25  | 0.108  | 0.128 |
| D      | 0.152       | 0.305 | 0.006  | 0.012 |
| E      | 7.75        | 8.25  | 0.305  | 0.325 |
| F      | 2.00        | 2.95  | 0.079  | 0.116 |
| G      | 0.051       | 0.203 | 0.002  | 0.008 |
| H      | 0.76        | 1.60  | 0.030  | 0.063 |

## Ordering Information

| Device  | Package       | Shipping       |
|---------|---------------|----------------|
| SK156   | SMC (Pb-Free) | 3000pcs / reel |
| SK156TR | SMC (Pb-Free) | 3000pcs / reel |

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

## Marking Diagram

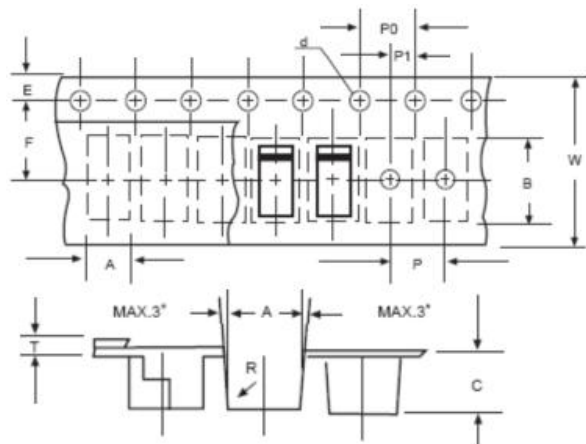


Where XXXXX is YYWWL

SK = Device Type  
15 = Forward Current (15A)  
6 = Reverse Voltage (60V)  
YY = Year  
WW = Week  
L = Lot Number

**Cautions:** Molding resin  
Epoxy resin UL:94V-0

## Carrier Tape Specification SMC



| SYMBOL | Millimeters |       |
|--------|-------------|-------|
|        | Min.        | Max.  |
| A      | 5.90        | 6.10  |
| B      | 8.20        | 8.40  |
| C      | 2.40        | 2.60  |
| d      | 1.40        | 1.60  |
| E      | 1.40        | 1.60  |
| F      | 7.60        | 7.70  |
| P      | 7.90        | 8.10  |
| P0     | 3.90        | 4.10  |
| P1     | 3.90        | 4.10  |
| T      | -           | 0.600 |
| W      | 15.80       | 16.20 |

**Technical Data**  
**Data Sheet N2596, REV.-**



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