

RoHS

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# **SMLJ60S05 THRU SMLJ60S10**

# **6 Amp Surface Mount Glass Passivated** Rectifier 50 - 1000 Volts

- Lead Free Finish/Rohs Compliant (Note1) ("P"Suffix designates Compliant. See ordering information)
  Halogen free available upon request by adding suffix "-HF"
  Epoxy meets UL 94 V-0 flammability rating

- Moisture Sensitivity Level 1
- High Surge Current Capability
- Low Leakage
- Glass Passivated Chip

# aximum Ratings

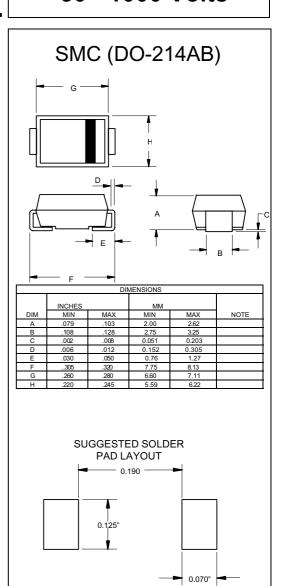
- Operating Junction Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C

| MCC<br>Catalog<br>Number | Device<br>Marking | Maximum<br>Reccurrent<br>Peak<br>Reverse<br>Voltage | Maximum<br>RMS<br>Voltage | Maximum<br>DC<br>Blocking<br>Voltage |
|--------------------------|-------------------|---|---------------------------|--------------------------------------|
| SMLJ60S05                | 60S05             | 50V   | 35V                       | 50V                                  |
| SMLJ60S1                 | 60S1              | 100V  | 70V                       | 100V                                 |
| SMLJ60S2                 | 60S2              | 200V  | 140V                      | 200V                                 |
| SMLJ60S4                 | 60S4              | 400V  | 280V                      | 400V                                 |
| SMLJ60S6                 | 60S6              | 600V  | 420V                      | 600V                                 |
| SMLJ60S8                 | 60S8              | 800V  | 560V                      | 800V                                 |
| SMLJ60S10                | 60S10             | 1000V   | 700V                      | 1000V                                |

### Electrical Characteristics @ 25°C Unless Otherwise Specified

| Average Forward Current  | I <sub>F(AV)</sub> | 6.0A         | T <sub>A</sub> = 100°C                            |
|--|--------------------|--------------|---|
| Peak Forward Surge<br>Current                                    | I <sub>FSM</sub>   | 200A         | 8.3ms, half sine                                  |
| Maximum<br>Instantaneous<br>Forward Voltage                      | V <sub>F</sub>     | 1.0V         | I <sub>FM</sub> = 6.0A;<br>T <sub>J</sub> = 25°C* |
| Maximum DC<br>Reverse Current At<br>Rated DC Blocking<br>Voltage | I <sub>R</sub>     | 5μΑ<br>100μΑ | T <sub>J</sub> = 25°C<br>T <sub>J</sub> = 100°C   |
| Typical Junction<br>Capacitance                                  | C <sub>J</sub>     | 150pF        | Measured at 1.0MHz, V <sub>R</sub> =4.0V          |

Note: 1. High Temperature Solder Exemptions Applied, see EU Directive Annex 7.

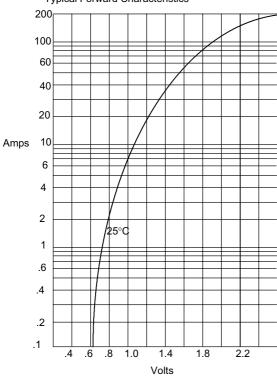


<sup>\*</sup>Pulse test: Pulse width 300 µsec, Duty cycle 1%

### SMLJ60S05 THRU SMLJ60S10

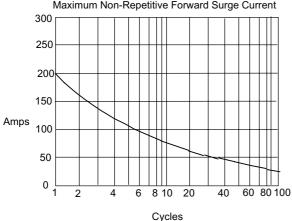


Figure 1
Typical Forward Characteristics



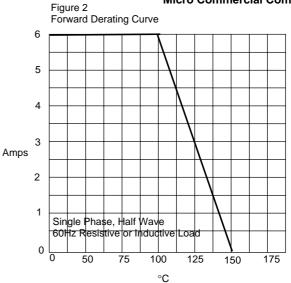
Instantaneous Forward Current - Amperesversus Instantaneous Forward Voltage - Volts

Figure 3
Maximum Non-Repetitive Forward Surge Current



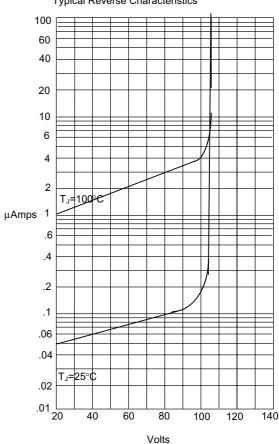
Peak Forward Surge Current - Amperesversus Number Of Cycles At 60Hz - Cycles

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Average Forward Rectified Current - Amperes versus Ambient Temperature -  $^{\circ}\text{C}$ 

Figure 4
Typical Reverse Characteristics



Instantaneous Reverse Leakage Current - MicroAmperesersus Percent Of Rated Peak Reverse Voltage - Volts



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## **Ordering Information:**

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

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

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