



Micro Commercial Components

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## SS12 THRU SS110

### Features

- Lead Free Finish/Rohs Compliant (Note1) ("P" Suffix designates Compliant. See ordering information)
- Low Forward Voltage
- Guard Ring Protection
- High Current Capability
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0 and MSL rating 1

### Maximum Ratings

- Operating Temperature: -55°C to +125°C
- Storage Temperature: -55°C to +150°C
- Maximum Thermal Resistance; 28°C/W Junction To Lead

| MCC Catalog Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|--------------------|----------------|----------------------------------------|---------------------|-----------------------------|
| SS12               | SS12           | 20V                                    | 14V                 | 20V                         |
| SS13               | SS13           | 30V                                    | 21V                 | 30V                         |
| SS14               | SS14           | 40V                                    | 28V                 | 40V                         |
| SS15               | SS15           | 50V                                    | 35V                 | 50V                         |
| SS16               | SS16           | 60V                                    | 42V                 | 60V                         |
| SS18               | SS18           | 80V                                    | 56V                 | 80V                         |
| SS110              | SS110          | 100V                                   | 70V                 | 100V                        |

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

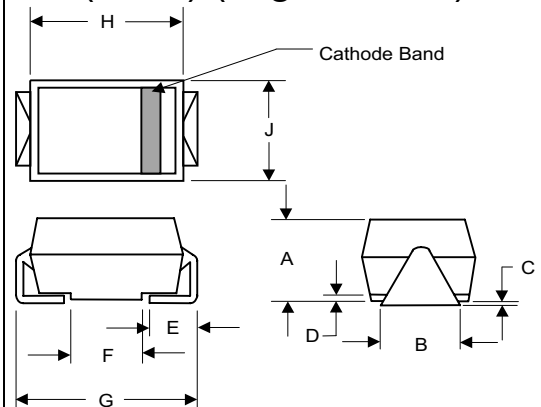
|                                                                                      |             |                                      |                                                       |
|--------------------------------------------------------------------------------------|-------------|--------------------------------------|-------------------------------------------------------|
| Average Forward Current                                                              | $I_{F(AV)}$ | 1.0A                                 | $T_J = 100^\circ\text{C}$                             |
| Peak Forward Surge Current                                                           | $I_{FSM}$   | 30A                                  | 8.3ms, half sine                                      |
| Maximum Instantaneous Forward Voltage<br>SS12<br>SS13<br>SS14<br>SS15-16<br>SS18-110 | $V_F$       | .45V<br>.55V<br>.60V<br>.70V<br>.85V | $I_{FM} = 1.0A$ ;<br>$T_J = 25^\circ\text{C}^*$       |
| Maximum DC Reverse Current At Rated DC Blocking Voltage                              | $I_R$       | 0.5mA<br>20mA                        | $T_A = 25^\circ\text{C}$<br>$T_A = 100^\circ\text{C}$ |
| Typical Junction Capacitance<br>SS12 - SS16<br>SS18-SS110                            | $C_J$       | 110pF<br>30pF                        | Measured at<br>1.0MHz, $V_R = 4.0V$                   |

\*Pulse test: Pulse width 300  $\mu\text{sec}$ , Duty cycle 2%

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

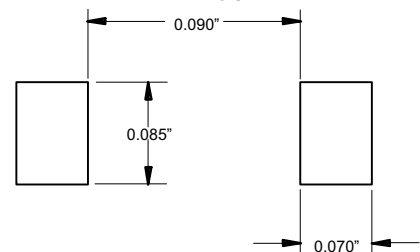
## 1 Amp Schottky Rectifier 20 to 100 Volts

### DO-214AC (SMA) (High Profile)



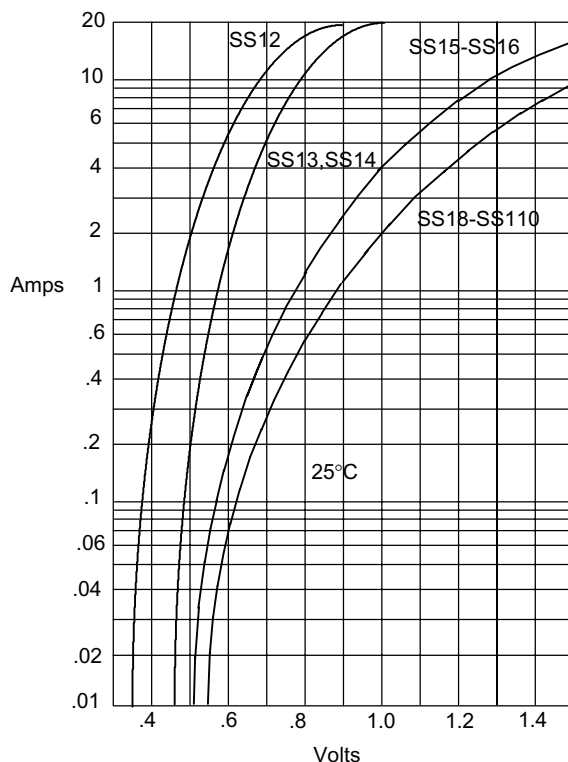
| DIM | INCHES |      | MM   |      | NOTE |
|-----|--------|------|------|------|------|
|     | MIN    | MAX  | MIN  | MAX  |      |
| A   | .078   | .116 | 1.98 | 2.95 |      |
| B   | .067   | .089 | 1.70 | 2.25 |      |
| C   | .002   | .008 | .05  | .20  |      |
| D   | —      | .02  | —    | .51  |      |
| E   | .035   | .055 | .89  | 1.40 |      |
| F   | .065   | .096 | 1.65 | 2.45 |      |
| G   | .205   | .224 | 5.21 | 5.69 |      |
| H   | .160   | .180 | 4.06 | 4.57 |      |
| J   | .100   | .112 | 2.57 | 2.84 |      |

### SUGGESTED SOLDER PAD LAYOUT



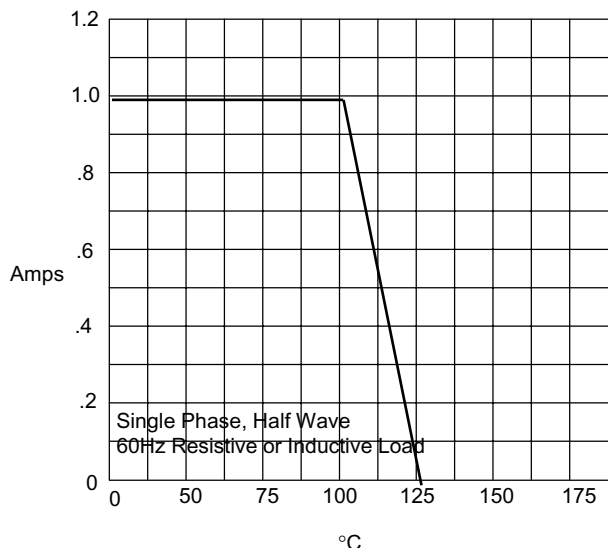
# SS12 thru SS110

Figure 1  
Typical Forward Characteristics



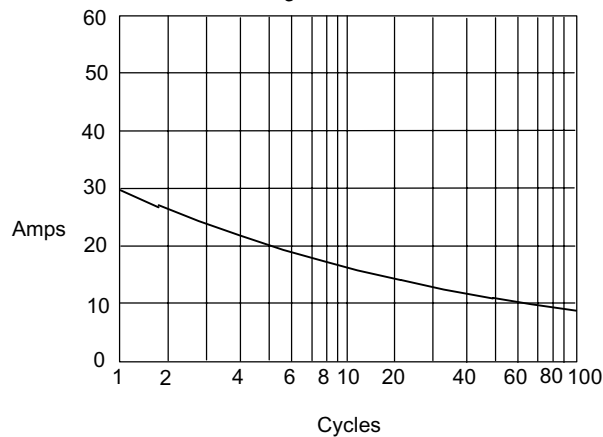
Instantaneous Forward Current - Amperes *versus*  
Instantaneous Forward Voltage - Volts

Figure 2  
Forward Derating Curve



Average Forward Rectified Current - Amperes *versus*  
Ambient Temperature - °C

Figure 3  
Peak Forward Surge Current



Peak Forward Surge Current - Amperes *versus*  
Number Of Cycles At 60Hz - Cycles

## Ordering Information

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

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