

Features

- Lead Free Finish/Rohs Compliant (Note1) ("P" Suffix designates Compliant. See ordering information)
- For Surface Mount Applications
- Low Thermal Resistance
- Easy Pick And Place
- High Temp Soldering: 260°C for 10 Seconds At Terminals
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0 and MSL rating 1

Maximum Ratings

- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C
- Maximum Thermal Resistance; 16°C/W Junction To Lead

| Catalog Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|----------------|----------------|----------------------------------------|---------------------|-----------------------------|
| S2A | S2A | 50V | 35V | 50V |
| S2B | S2B | 100V | 70V | 100V |
| S2D | S2D | 200V | 140V | 200V |
| S2G | S2G | 400V | 280V | 400V |
| S2J | S2J | 600V | 420V | 600V |
| S2K | S2K | 800V | 560V | 800V |
| S2M | S2M | 1000V | 700V | 1000V |

Electrical Characteristics @ 25°C Unless Otherwise Specified

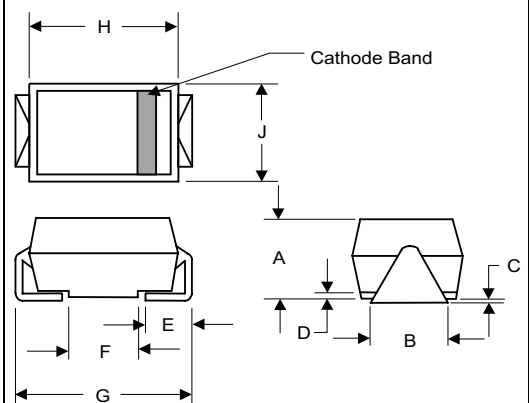
| | | | |
|---------------------------------------------------------|-------------|--------------------------------------|---------------------------------------------------------|
| Average Forward current | $I_{F(AV)}$ | 2.0A | $T_J = 75^\circ\text{C}$ |
| Peak Forward Surge Current | I_{FSM} | 50A | 8.3ms, half sine, $T_J = 150^\circ\text{C}$ |
| Maximum Instantaneous Forward Voltage | V_F | 1.15V | $I_{FM} = 2.0\text{A}; T_J = 25^\circ\text{C}^*$ |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | I_R | 10 μA 50 μA | $T_J = 25^\circ\text{C}$ $T_J = 125^\circ\text{C}$ |
| Maximum Reverse Recovery Time | T_{rr} | 2.0 μs | $I_F=0.5\text{A}, I_R=1.0\text{A}, I_{rr}=0.25\text{A}$ |
| Typical Junction Capacitance | C_J | 30pF | Measured at 1.0MHz, $V_R=4.0\text{V}$ |

*Pulse test: Pulse width 300 μsec , Duty cycle 2%

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

2 Amp Silicon Rectifier 50 to 1000 Volts

DO-214AA (HSMB) (Round Lead)



| DIM | DIMENSIONS | | | | NOTE |
|-----|------------|------|------|------|------|
| | INCHES | | MM | | |
| | MIN | MAX | MIN | MAX | |
| A | .078 | .116 | 1.98 | 2.95 | |
| B | .075 | .089 | 1.90 | 2.25 | |
| C | .002 | .008 | .05 | .20 | |
| D | --- | .02 | --- | .51 | |
| E | .035 | .055 | .90 | 1.40 | |
| F | .065 | .091 | 1.65 | 2.32 | |
| G | .205 | .224 | 5.21 | 5.69 | |
| H | .160 | .180 | 4.06 | 4.57 | |
| J | .130 | .155 | 3.30 | 3.94 | |

SUGGESTED SOLDER PAD LAYOUT

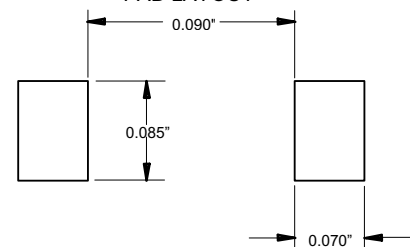
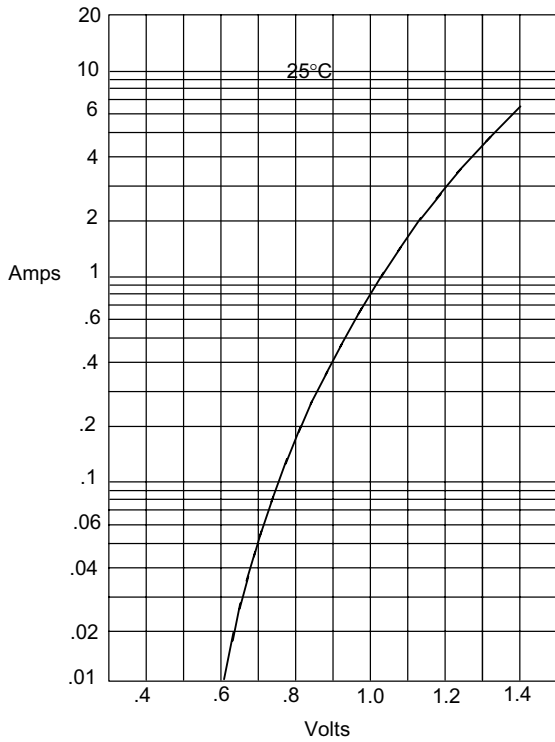
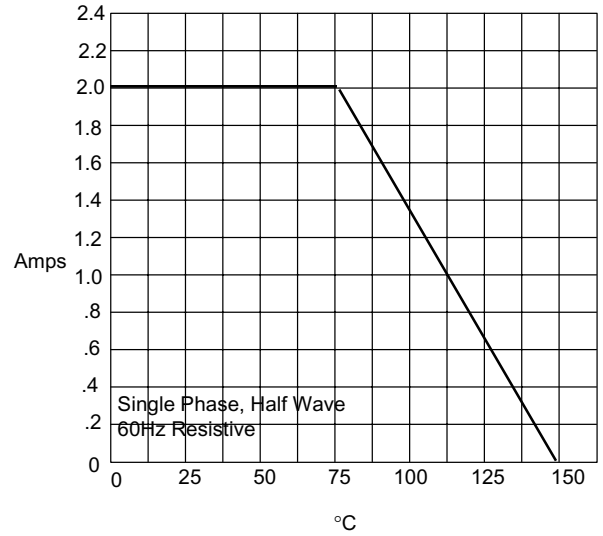


Figure 1
Typical Forward Characteristics



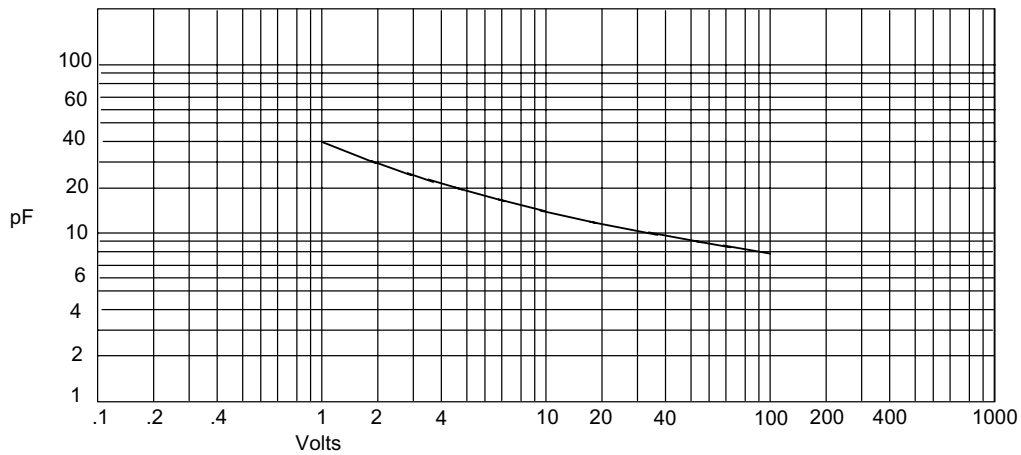
Instantaneous Forward Current - Amperes *versus*
Instantaneous Forward Voltage - Volts

Figure 2
Forward Derating Curve

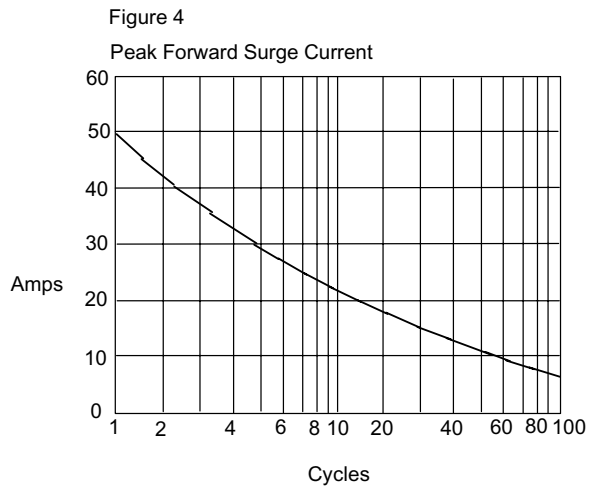


Average Forward Rectified Current - Amperes *versus*
Ambient Temperature - °C

Figure 3
Junction Capacitance



Junction Capacitance - pF *versus*
Reverse Junction Potential (Applied V + 0.7 Volts) - Volts



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

