

FR2A-L THRU FR2M-L

2.0 Amp Fast Recovery Rectifier 50 to 1000 Volts

Features

- Lead Free Finish/Rohs Compliant (Note1) ("P" Suffix designates Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Higher Temp Soldering: 260°C for 10 Seconds At Terminals
- Available on Tape and Reel
- Halogen free available upon request by adding suffix "-HF"

Maximum Ratings

- Operating Temperature: -50°C to +150°C
- Storage Temperature: -50°C to +150°C

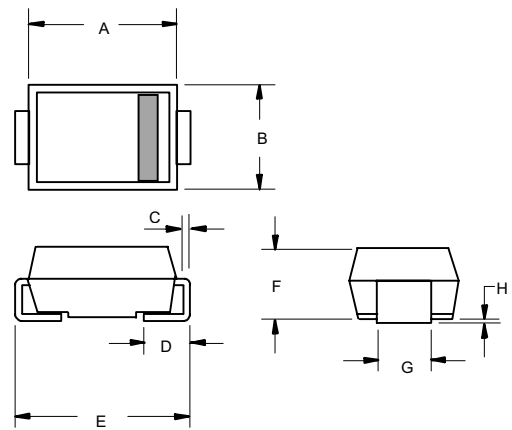
| MCC Catalog Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|--------------------|----------------|--|---------------------|-----------------------------|
| FR2A-L | FR2A | 50V | 35V | 50V |
| FR2B-L | FR2B | 100V | 70V | 100V |
| FR2D-L | FR2D | 200V | 140V | 200V |
| FR2G-L | FR2G | 400V | 280V | 400V |
| FR2J-L | FR2J | 600V | 420V | 600V |
| FR2K-L | FR2K | 800V | 560V | 800V |
| FR2M-L | FR2M | 1000V | 700V | 1000V |

Electrical Characteristics @ 25°C Unless Otherwise Specified

| | | | |
|--|-------------|-------------------------|--|
| Average Forward Current | $I_{F(AV)}$ | 2.0A | $T_J=90^\circ\text{C}$ |
| Peak Forward Surge Current | I_{FSM} | 50A | 8.3ms half sine |
| Maximum Instantaneous Forward Voltage | V_F | 1.30V | $I_{FM}=2.0A$ $T_A=25^\circ\text{C}^*$ |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | I_R | 5.0uA | $T_J=25^\circ\text{C}$ |
| Maximum Reverse Recovery Times FR2A-L~FR2G-L FR2J-L FR2K-L~FR2M-L | t_{rr} | 150ns 250ns 500ns | $I_F=0.5A,$ $I_R=1.0A,$ $I_{rr}=0.25A$ |
| Typical Junction Capacitance | C_j | 50pF | Measured at 1.0MHz, $V_R=4.0V$ |

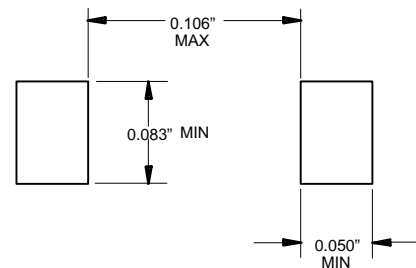
Note:1. High Temperature Solder Exemptions Applied, see EU Directive Annex 7.
 *Pulse test: Pulse width 300 usec, duty cycle 2%.

DO-214AA (SMB) (LEAD FRAME)



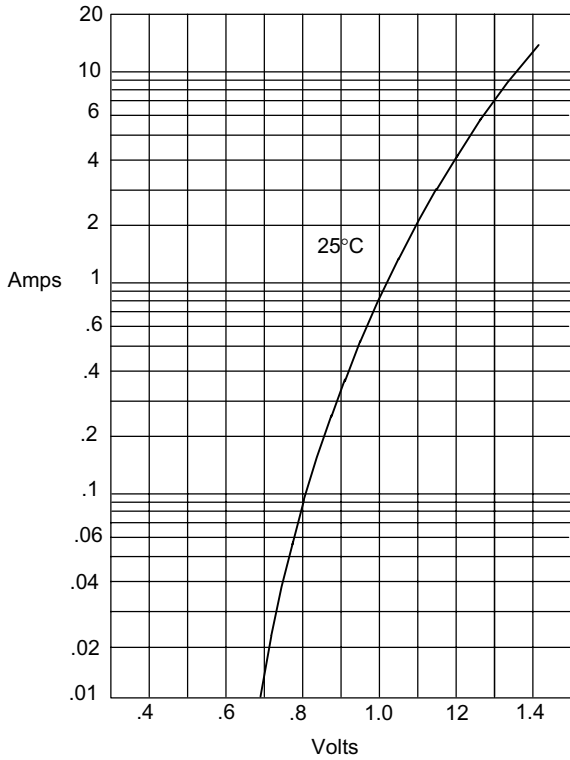
| DIM | DIMENSIONS | | | | NOTE |
|-----|------------|------|------|------|------|
| | INCHES | | MM | | |
| A | .160 | .180 | 4.06 | 4.57 | |
| B | .130 | .155 | 3.30 | 3.94 | |
| C | .006 | .012 | 0.15 | 0.31 | |
| D | .030 | .060 | 0.76 | 1.52 | |
| E | .205 | .220 | 5.21 | 5.59 | |
| F | .079 | .103 | 2.01 | 2.62 | |
| G | .077 | .087 | 1.96 | 2.21 | |
| H | .002 | .008 | 0.05 | 0.20 | |

SUGGESTED SOLDER PAD LAYOUT



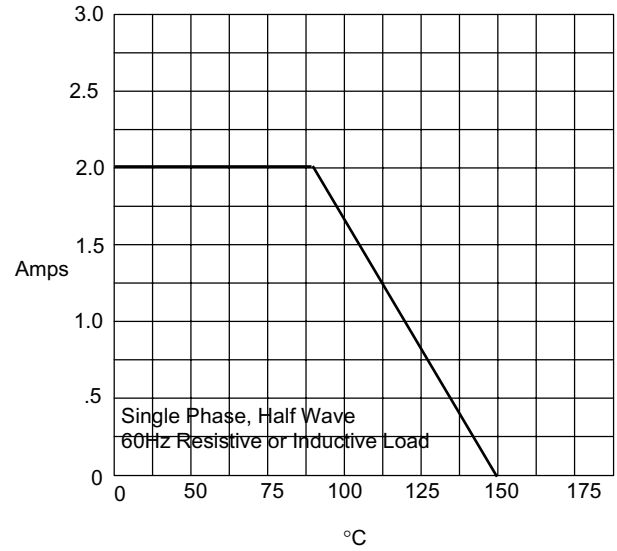
FR2A-L thru FR2M-L

Figure 1
Typical Forward Characteristics



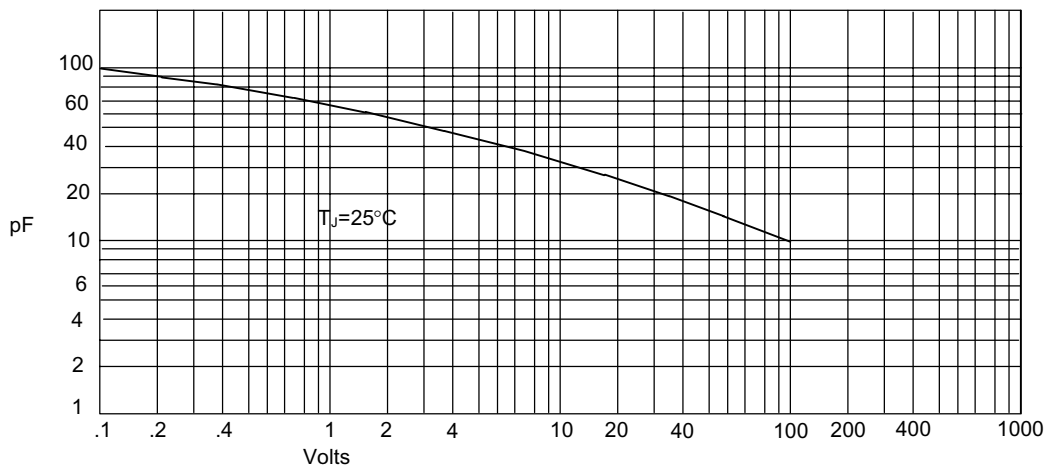
Instantaneous Forward Current - Amperes *versus*
Instantaneous Forward Voltage - Volts

Figure 2
Forward Derating Curve



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

Figure 3
Junction Capacitance



Junction Capacitance - pF *versus*
Reverse Voltage - Volts

FR2A-L thru FR2M-L

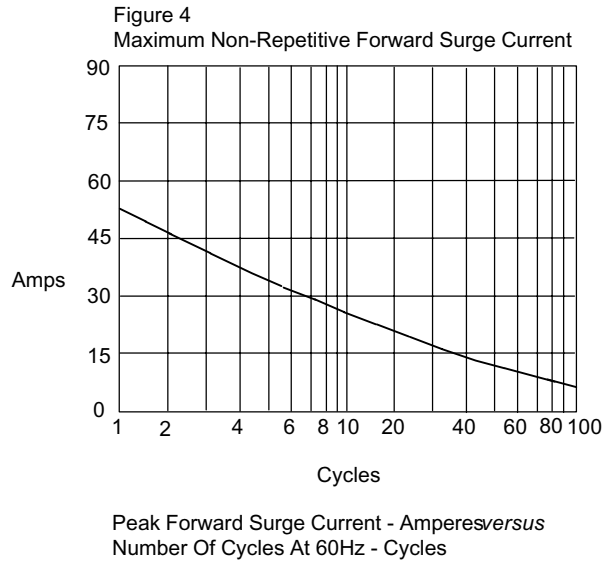
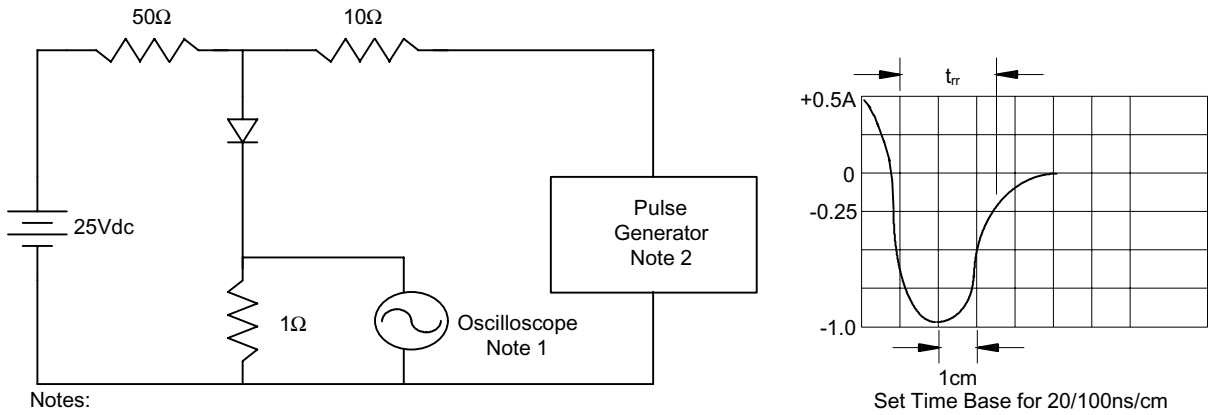


Figure 5
Reverse Recovery Time Characteristic And Test Circuit Diagram





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Ordering Information :

| Device | Packing |
|-------------------|-----------------------|
| FR2A-LTP~FR2M-LTP | Tape&Reel: 3Kpcs/Reel |

Note : Adding "-HF" suffix for halogen free, eg. FR2A-LTP-HF~FR2M-LTP-HF

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