

### Features

- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix Designates RoHS Compliant. See Ordering Information)
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1
- Glass Passivated Die Construction
- Halogen Free. "Green" Device (Note 2)

### Maximum Ratings

- Operating Junction Temperature Range: -65°C to +175°C
- Storage Temperature Range: -65°C to +175°C
- Maximum Thermal Resistance: 20°C/W Junction to Lead

| MCC Part Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|-----------------|----------------|--|---------------------|-----------------------------|
| ES2A-L          | ES2A           | 50V                                    | 35V                 | 50V                         |
| ES2B-L          | ES2B           | 100V                                   | 70V                 | 100V                        |
| ES2C-L          | ES2C           | 150V                                   | 105V                | 150V                        |
| ES2D-L          | ES2D           | 200V                                   | 140V                | 200V                        |
| ES2G-L          | ES2G           | 400V                                   | 280V                | 400V                        |
| ES2J-L          | ES2J           | 600V                                   | 420V                | 600V                        |

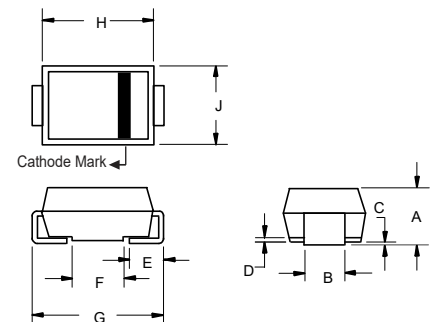
### Electrical Characteristics @ 25°C Unless Otherwise Specified

|   |             |  |   |
|---|-------------|--|---|
| Average Forward Current                                 | $I_{F(AV)}$ | 2.0A   | $T_L=110^\circ\text{C}$   |
| Peak Forward Surge Current                              | $I_{FSM}$   | 50A  | 8.3ms, Half Sine  |
| Maximum Instantaneous Forward Voltage                   | $V_F$       | 0.95V<br>1.25V<br>1.70V<br>0.975V(Typ)<br>1.25V(Max) | $I_{FM}=2.0A; T_A=25^\circ\text{C}$<br>$I_{FM}=2.0A; T_A=25^\circ\text{C}$<br>$I_{FM}=2.0A; T_A=25^\circ\text{C}$<br>$I_{FM}=2.0A; T_A=150^\circ\text{C}$<br>$I_{FM}=2.0A; T_A=150^\circ\text{C}$ |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | $I_R$       | 1.0 $\mu\text{A}$<br>100 $\mu\text{A}$               | $T_A=25^\circ\text{C};$<br>$T_A=125^\circ\text{C}$  |
| Maximum Reverse Recovery Time                           | $t_{rr}$    | 35ns   | $I_F=0.5A; I_R=1.0A;$<br>$I_{rr}=0.25A$   |
| Typical Junction Capacitance                            | $C_J$       | 15pF   | Measured at 1.0MHz<br>$V_R=4.0V$  |

- Note :1. High Temperature Solder Exemption Applied, see EU Directive Annex Notes 7a.  
2. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

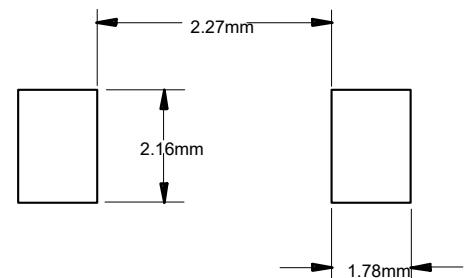
## 2 Amp Super Fast Recovery Rectifier 50 to 600 Volts

### SMA (DO-214AC)



| DIM | DIMENSIONS |       |       |       | NOTE |
|-----|------------|-------|-------|-------|------|
|     | INCHES     |       | MM    |       |      |
|     | MIN        | MAX   | MIN   | MAX   |      |
| A   | 0.075      | 0.096 | 1.90  | 2.44  |      |
| B   | 0.050      | 0.064 | 1.27  | 1.63  |      |
| C   | 0.002      | 0.008 | 0.051 | 0.203 |      |
| D   | ---        | 0.020 | ---   | 0.51  |      |
| E   | 0.030      | 0.060 | 0.76  | 1.52  |      |
| F   | 0.065      | 0.091 | 1.65  | 2.32  |      |
| G   | 0.189      | 0.220 | 4.80  | 5.59  |      |
| H   | 0.157      | 0.187 | 4.00  | 4.75  |      |
| J   | 0.090      | 0.115 | 2.25  | 2.92  |      |

### SUGGESTED SOLDER PAD LAYOUT



## Curve Characteristics

Fig. 1 - Forward Current Derating Curve

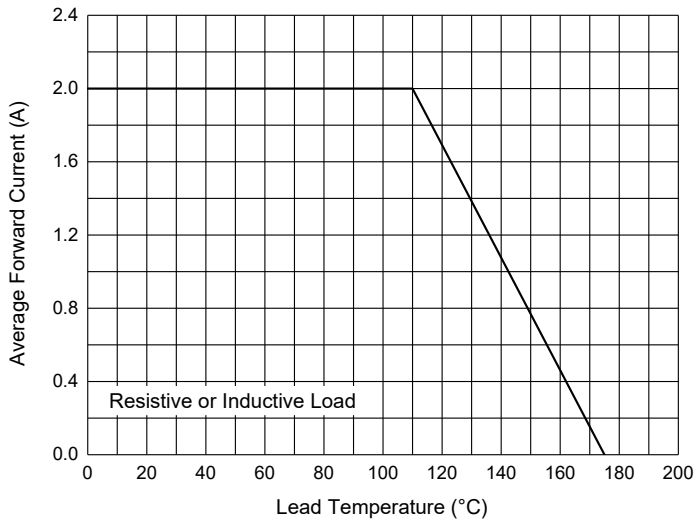


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

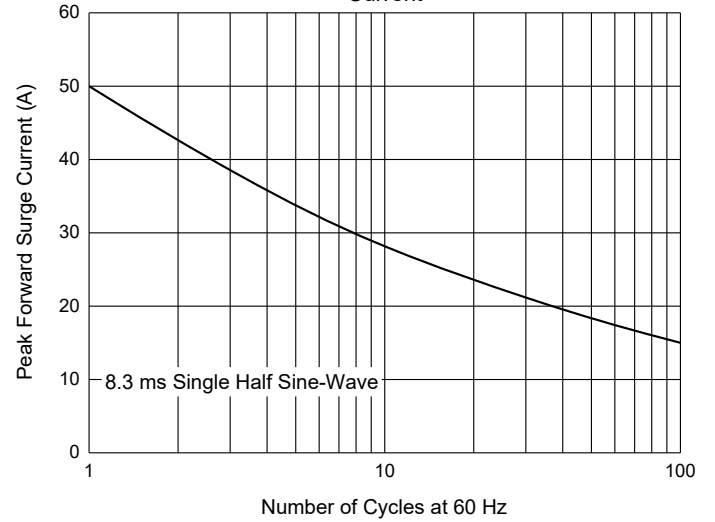


Fig. 3 - Typical Instantaneous Forward Characteristics

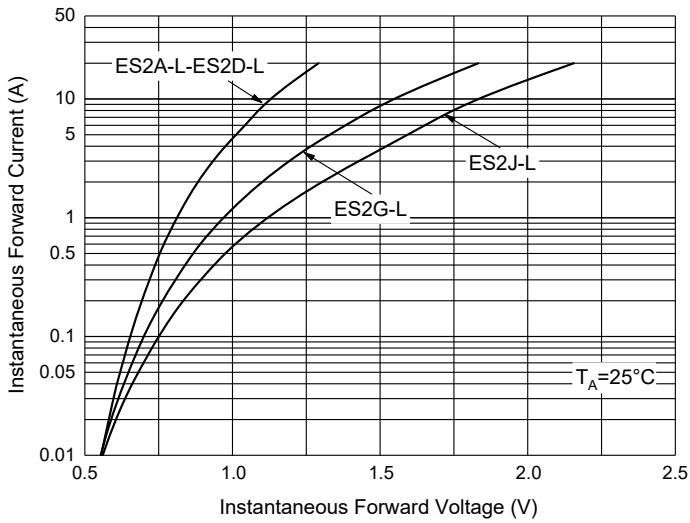
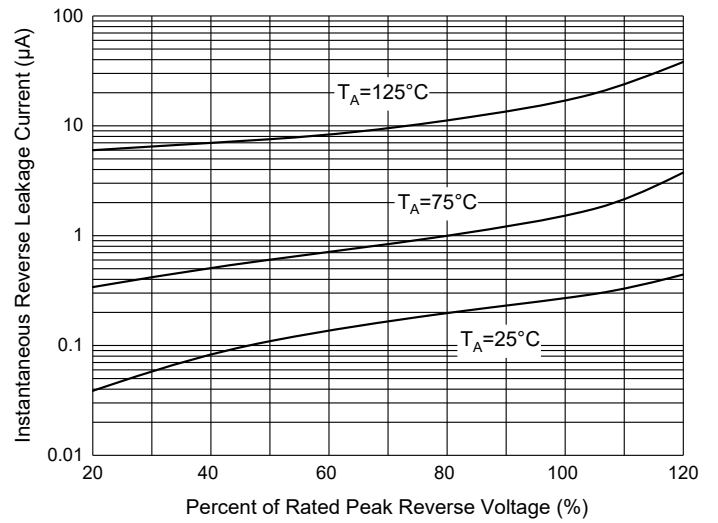


Fig. 4 - Typical Reverse Leakage Characteristics



## Ordering Information

| Device            | Packing               |
|-------------------|-----------------------|
| ES2A-LTP~ES2J-LTP | Tape&Reel: 5Kpcs/Reel |

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