| **ELECTRICAL CHARACTERISTICS** ($T_A$ = 25 °C unless otherwise noted) | | | | | | |
|---|---|---|---|---|---|---|
| **PARAMETER** | **TEST CONDITIONS** | | **SYMBOL** | **TYP.** | **MAX.** | **UNIT** |
| Instantaneous forward voltage | $I_F$ = 0.5 A | $T_A$ = 25 °C | $V_F$ (1) | 0.38 | - | V |
| | $I_F$ = 1.0 A | | | 0.42 | 0.48 | |
| | $I_F$ = 0.5 A | $T_A$ = 125 °C | | 0.26 | - | |
| | $I_F$ = 1.0 A | | | 0.31 | 0.35 | |
| Reverse current | $V_R$ = 30 V | $T_A$ = 25 °C | $I_R$ (2) | - | 200 | µA |
| | | $T_A$ = 125 °C | | 6 | 12 | mA |
| Typical junction capacitance | 4.0 V, 1 MHz | | $C_J$ | 130 | - | pF |

**Notes**

(1) Pulse test: 300 µs pulse width, 1 % duty cycle

(2) Pulse test: Pulse width ≤ 5 ms

| **THERMAL CHARACTERISTICS** ($T_A$ = 25 °c unless otherwise noted) | | | |
|---|---|---|---|
| **PARAMETER** | **SYMBOL** | **SS1FL3** | **UNIT** |
| Typical thermal resistance | $R_{\theta JA}$ (1)(2)(3) | 125 | °C/W |
| | $R_{\theta JM}$ (2)(3) | 22 | |

**Notes**

(1) The heat generated must be less than the thermal conductivity from junction-to-ambient: $dP_D/dT_J < 1/R_{\theta JA}$

(2) Device mounted on FR4 PCB, 2 oz. standard footprint

(3) Thermal resistance $R_{\theta JA}$ - junction to ambient; $R_{\theta JM}$ - junction to mount

| **ORDERING INFORMATION** (Example) | | | | |
|---|---|---|---|---|
| **PREFERRED P/N** | **UNIT WEIGHT (g)** | **PREFERRED PACKAGE CODE** | **BASE QUANTITY** | **DELIVERY MODE** |
| SS1FL3-M3/H | 0.015 | H | 3000 | 7" diameter plastic tape and reel |
| SS1FL3-M3/I | 0.015 | I | 10 000 | 13" diameter plastic tape and reel |
| SS1FL3HM3/H (1) | 0.015 | H | 3000 | 7" diameter plastic tape and reel |
| SS1FL3HM3/I (1) | 0.015 | I | 10 000 | 13" diameter plastic tape and reel |

**Note**

(1) AEC-Q101 qualified

## RATINGS AND CHARACTERISTICS CURVES ($T_A$ = 25 °C unless otherwise noted)

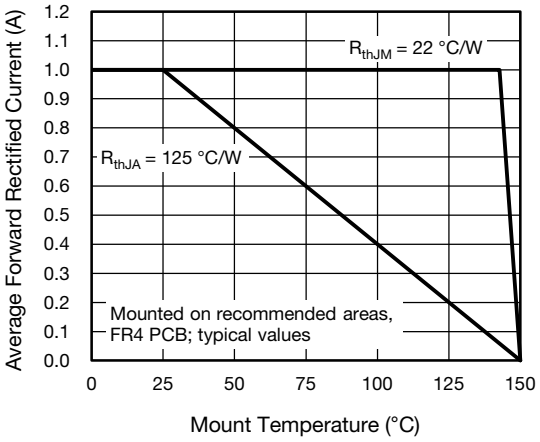



Fig. 1 - Typical Forward Current Derating Curve

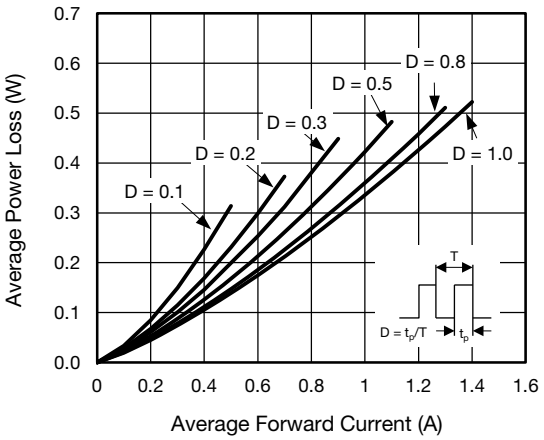



Fig. 2 - Forward Power Loss Characteristics

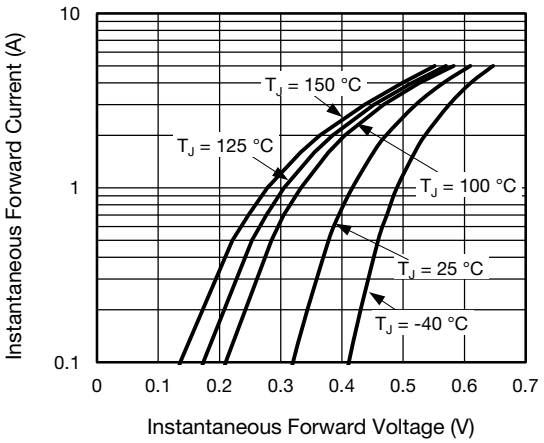



Fig. 3 - Typical Instantaneous Forward Characteristics

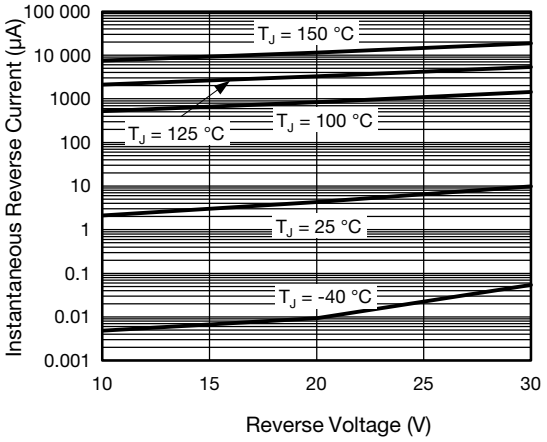



Fig. 4 - Typical Reverse Leakage Characteristics

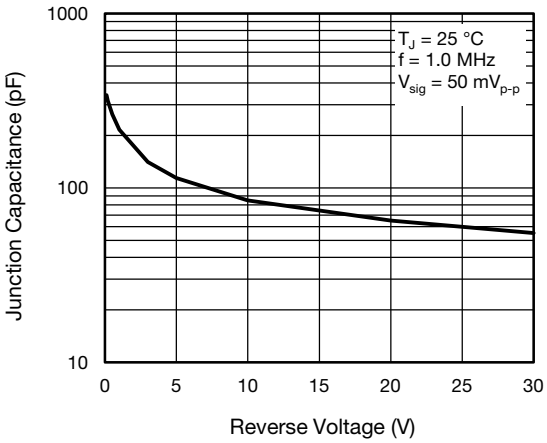



Fig. 5 - Typical Junction Capacitance

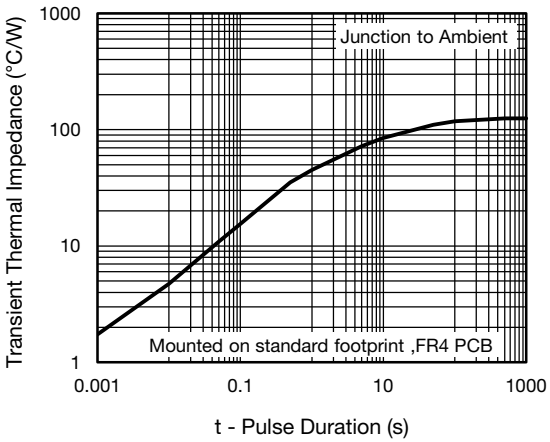
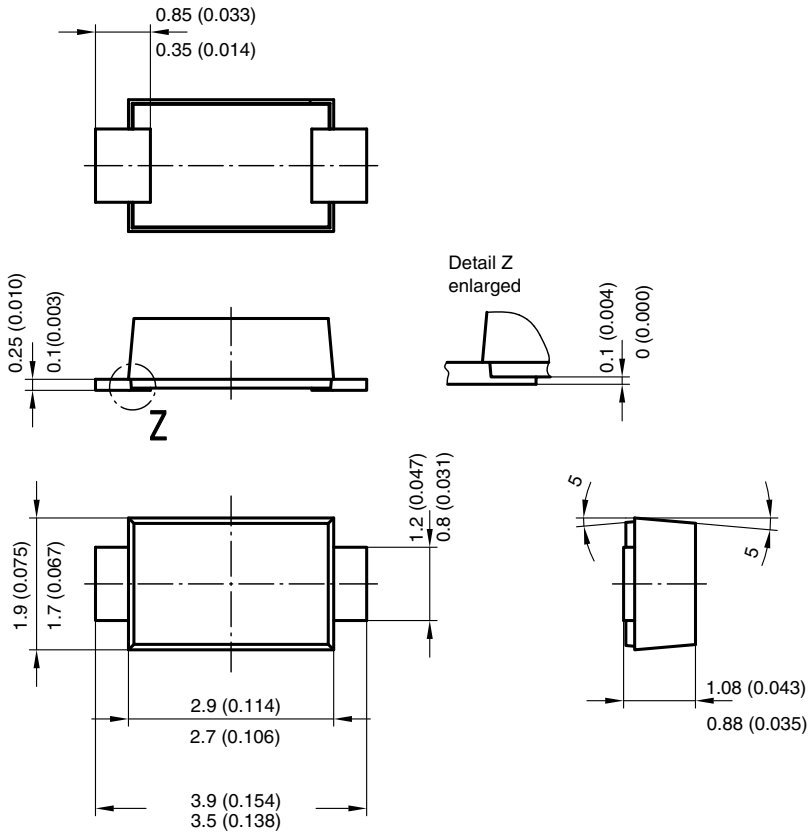
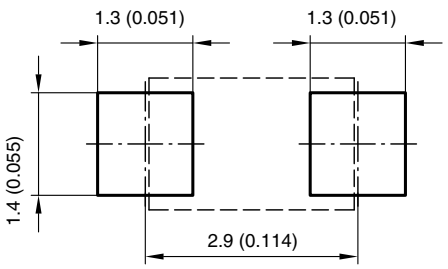



Fig. 6 - Typical Transient Thermal Impedance

**PACKAGE OUTLINE DIMENSIONS** in millimeters (inches)




Foot print recommendation:

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