



| ELECTRICAL CHARACTERISTICS (T <sub>A</sub> = 25 °C unless otherwise noted) |  |                         |                               |       |      |      |
|--|--|-------------------------|-------------------------------|-------|------|------|
| PARAMETER  | TEST CONDITIONS  |                         | SYMBOL                        | TYP.  | MAX. | UNIT |
| Instantaneous forward voltage  | I <sub>F</sub> = 2.0 A   | T <sub>A</sub> = 25 °C  | V <sub>F</sub> <sup>(1)</sup> | 0.897 | -    | V    |
|  | I <sub>F</sub> = 4.0 A   |                         |                               | 0.958 | 1.10 |      |
|  | I <sub>F</sub> = 2.0 A   | T <sub>A</sub> = 125 °C |                               | 0.783 | -    |      |
|  | I <sub>F</sub> = 4.0 A   |                         |                               | 0.860 | 0.95 |      |
| Reverse current  | Rated V <sub>R</sub>   | T <sub>A</sub> = 25 °C  | I <sub>R</sub> <sup>(2)</sup> | -     | 10   | μA   |
|  |  | T <sub>A</sub> = 125 °C |                               | 55    | 100  |      |
| Max. reverse recovery time   | I <sub>F</sub> = 0.5 A, I <sub>R</sub> = 1.0 A, I <sub>rr</sub> = 0.25 A |                         | t <sub>rr</sub>               | 2.5   | -    | μs   |
| Typical junction capacitance   | 4.0 V, 1 MHz   |                         | C <sub>J</sub>                | 30    | -    | pF   |

**Notes**(1) Pulse test: 300  $\mu\text{s}$  pulse width, 1 % duty cycle(2) Pulse test: Pulse width  $\leq 40\text{ ms}$ 

| THERMAL CHARACTERISTICS (T <sub>A</sub> = 25 °C unless otherwise specified) |                                 |      |      |      |      |      |      |      |
|---|---------------------------------|------|------|------|------|------|------|------|
| PARAMETER   | SYMBOL                          | S4PB | S4PD | S4PG | S4PJ | S4PK | S4PM | UNIT |
| Typical thermal resistance  | R <sub>θJA</sub> <sup>(1)</sup> | 60   |      |      |      |      |      | °C/W |
|   | R <sub>θJL</sub>                | 4    |      |      |      |      |      |      |

**Note**

(1) Units mounted on recommended PCB 1 oz. pad layout

| <b>ORDERING INFORMATION</b> (Example) |                 |              |               |                                    |
|---------------------------------------|-----------------|--------------|---------------|------------------------------------|
| PREFERRED P/N                         | UNIT WEIGHT (g) | PACKAGE CODE | BASE QUANTITY | DELIVERY MODE                      |
| S4PJ-M3/86A                           | 0.10            | 86A          | 1500          | 7" diameter plastic tape and reel  |
| S4PJ-M3/87A                           | 0.10            | 87A          | 6500          | 13" diameter plastic tape and reel |
| S4PJHM3_A/H <sup>(1)</sup>            | 0.10            | H            | 1500          | 7" diameter plastic tape and reel  |
| S4PJHM3_A/I <sup>(1)</sup>            | 0.10            | I            | 6500          | 13" diameter plastic tape and reel |

**Note**

(1) AEC-Q101 qualified



## RATINGS AND CHARACTERISTICS CURVES ( $T_A = 25\text{ }^{\circ}\text{C}$ unless otherwise noted)

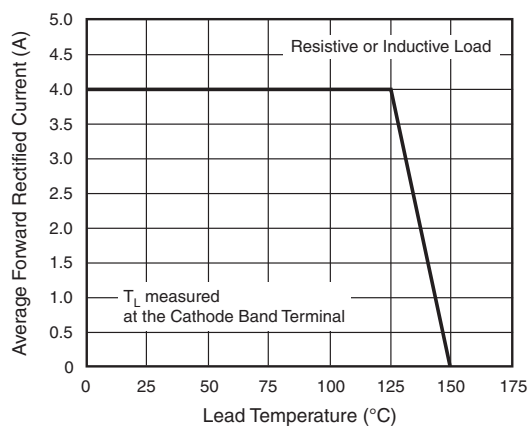


Fig. 1 - Maximum Forward Current Derating Curve

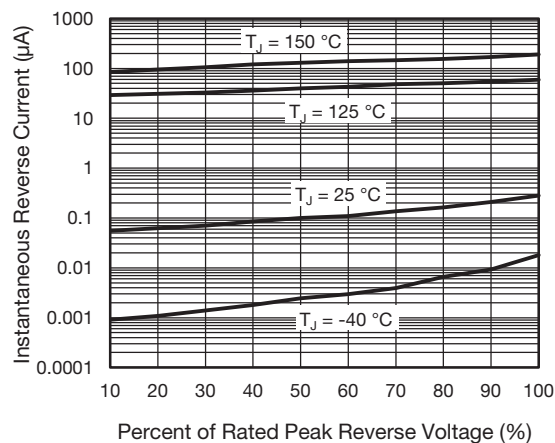


Fig. 4 - Typical Reverse Leakage Characteristics

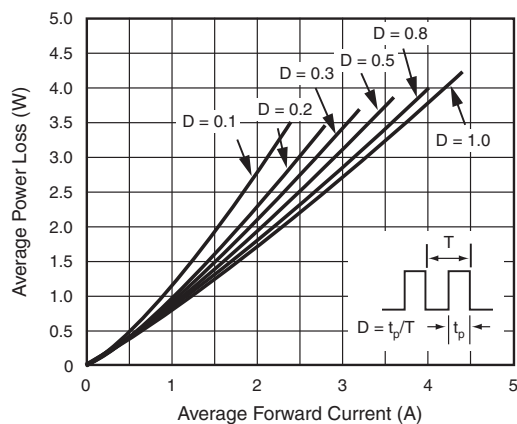


Fig. 2 - Forward Power Loss Characteristics

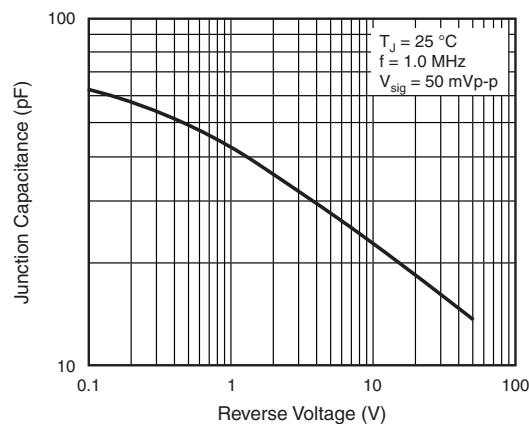


Fig. 5 - Typical Junction Capacitance

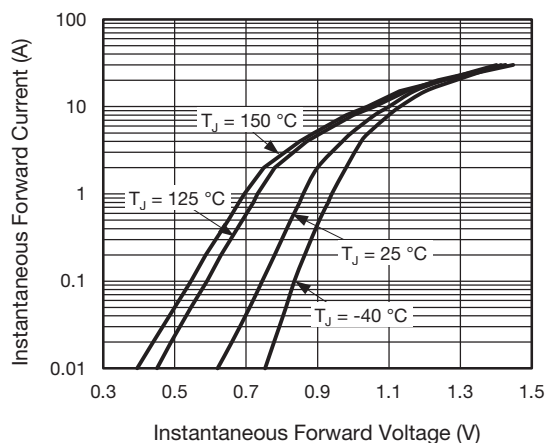


Fig. 3 - Typical Instantaneous Forward Characteristics

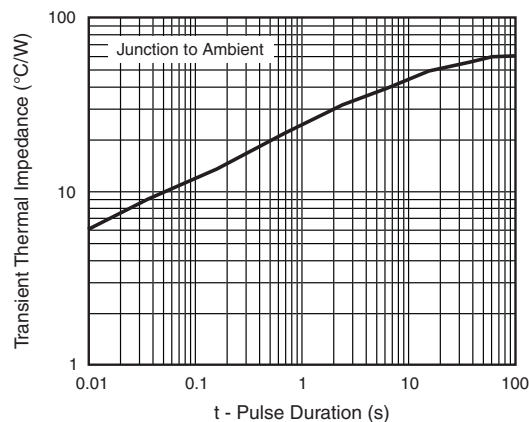
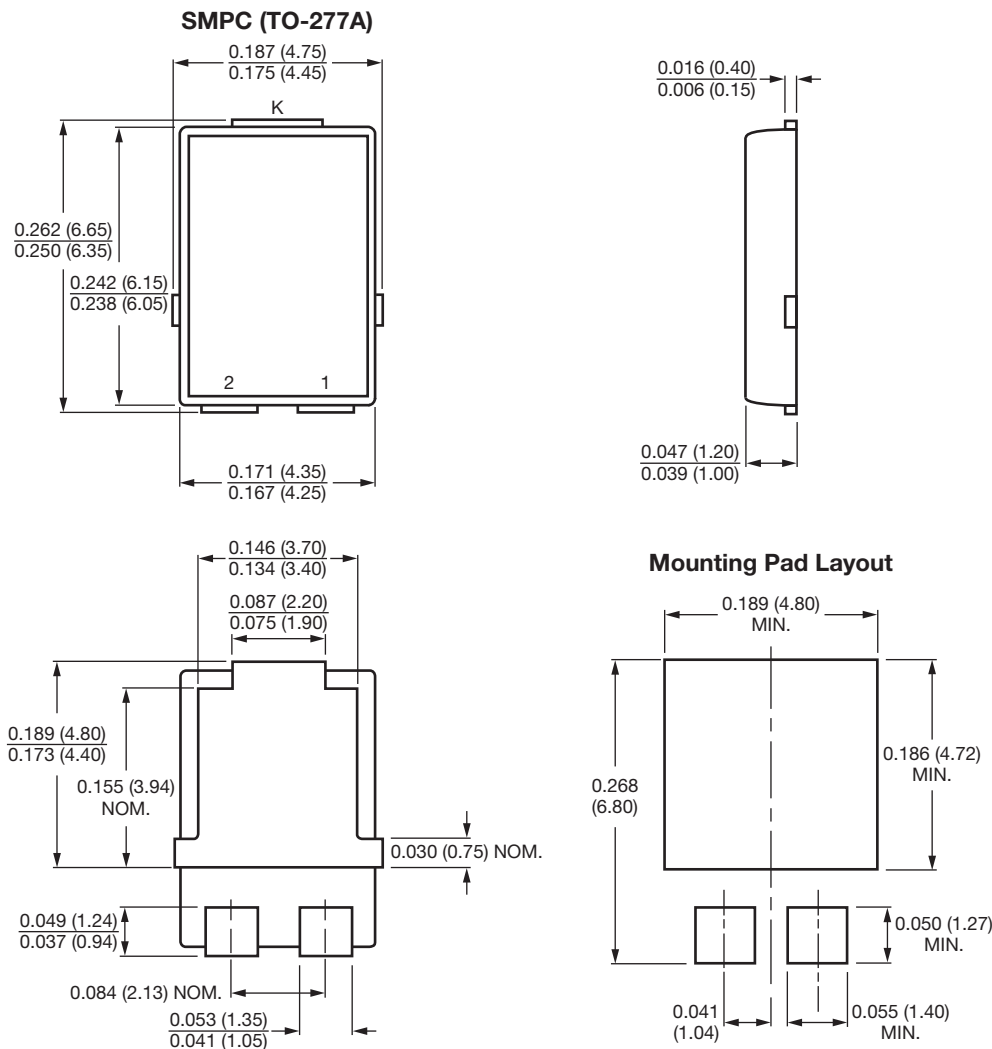


Fig. 6 - Typical Transient Thermal Impedance



## PACKAGE OUTLINE DIMENSIONS in inches (millimeters)



Conform to JEDEC® TO-277A



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