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Vishay General Semiconductor

| ELECTRICAL CHARACTERISTICS (T _A = 25 °C unless otherwise noted) | | | | | | | | |
|---|-----------------------|-------------------------|-------------------------------|------|------|------|--|--|
| PARAMETER | TEST CONDITIONS | | SYMBOL | TYP. | MAX. | UNIT | | |
| Instantaneous forward voltage | I _F = 5 A | T _A = 25 °C | V _F (1) | 0.51 | - | | | |
| | I _F = 7 A | | | 0.55 | - | | | |
| | I _F = 10 A | | | 0.59 | 0.67 | V | | |
| | I _F = 5 A | T _A = 125 °C | | 0.42 | - | | | |
| | I _F = 7 A | | | 0.47 | = | | | |
| | I _F = 10A | | | 0.55 | 0.63 | | | |
| Reverse current | Rated V _R | T _A = 25 °C | I _R ⁽²⁾ | 7.8 | 150 | μΑ | | |
| | nateu v _R | T _A = 125 °C | | 5.9 | 15 | mA | | |
| Typical junction capacitance | 4.0 V, 1 MHz | | CJ | 560 | - | pF | | |

Notes

 $^{(1)}\,$ Pulse test: 300 μs pulse width, 1 % duty cycle

(2) Pulse test: Pulse width ≤ 40 ms

| THERMAL CHARACTERISTICS (T _A = 25 °C unless otherwise specified) | | | | | | | |
|---|---------------------------------|--------|--------|------|--|--|--|
| PARAMETER | SYMBOL | SS10P5 | SS10P6 | UNIT | | | |
| Typical thermal resistance per diode | R _{eJA} ⁽¹⁾ | 60 | | °C/W | | | |
| | $R_{	heta JL}$ | 3 | | | | | |

Note

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

| ORDERING INFORMATION (Example) | | | | | | | | |
|--------------------------------|-----------------|--------------|---------------|------------------------------------|--|--|--|--|
| PREFERRED P/N | UNIT WEIGHT (g) | PACKAGE CODE | BASE QUANTITY | DELIVERY MODE | | | | |
| SS10P6-M3/86A | 0.10 | 86A | 1500 | 7" diameter plastic tape and reel | | | | |
| SS10P6-M3/87A | 0.10 | 87A | 6500 | 13" diameter plastic tape and reel | | | | |
| SS10P6HM3_A/H (1) | 0.10 | Н | 1500 | 7" diameter plastic tape and reel | | | | |
| SS10P6HM3_A/I (1) | 0.10 | I | 6500 | 13" diameter plastic tape and reel | | | | |

Note

(1) AEC-Q101 qualified

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RATINGS AND CHARACTERISTICS CURVES (T_A = 25 °C unless otherwise specified)

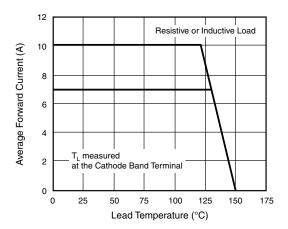
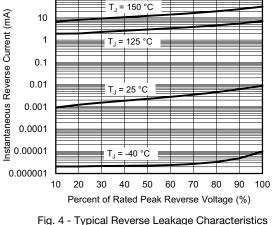


Fig. 1 - Maximum Forward Current Derating Curve



100

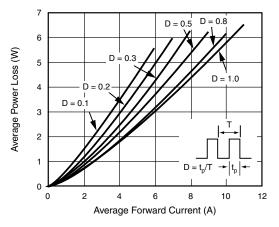


Fig. 2 - Forward Power Loss Characteristics

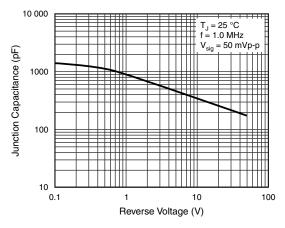


Fig. 5 - Typical Junction Capacitance

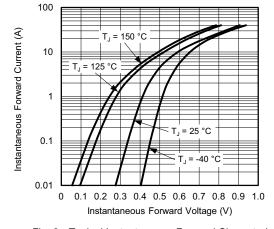


Fig. 3 - Typical Instantaneous Forward Characteristics

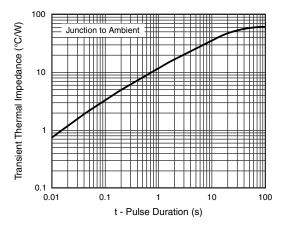
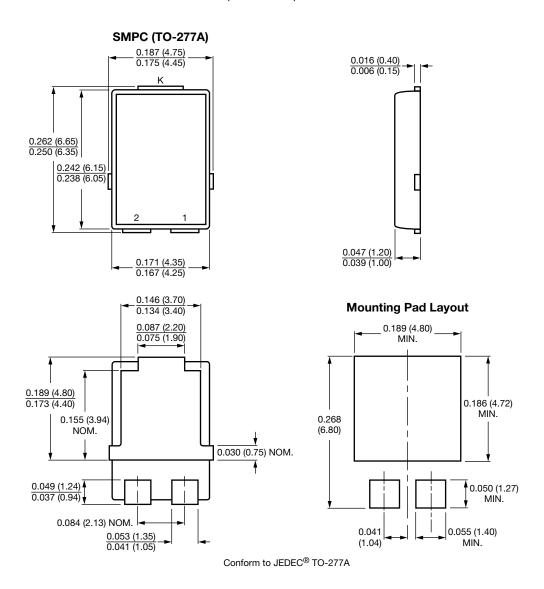


Fig. 6 - Typical Transient Thermal Impedance



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PACKAGE OUTLINE DIMENSIONS in inches (millimeters)





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