

Planar MOS SCHOTTKY RECTIFIERS

REVERSE VOLTAGE - **50** Volts
FORWARD CURRENT - **10.0** Amperes

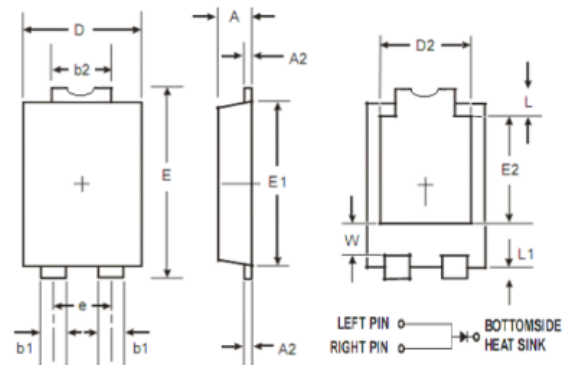
FEATURES

- Low power loss, high efficiency
- Low forward voltage drop
- High forward surge capability
- High frequency operation
- Excellent high temperature stability
- Planar MOS Schottky technology
- Suffix "H" indicates halogen free parts,

MECHANICAL DATA

- Case: TO-277
- Polarity : Color band denotes cathode
- Terminals: Pure tin plated, lead free
- Mounting position : Any

TO-277



| NO | DIM(mm) | NO | DIM(mm) |
|----|-----------|----|----------|
| A | 1.25±0.1 | e | 1.84Typ. |
| A2 | 0.38±0.05 | E1 | 5.3±0.1 |
| b1 | 0.9±0.1 | E2 | 3.5±0.1 |
| b2 | 1.8±0.1 | L | 0.8±0.15 |
| D | 3.95±0.1 | L1 | 0.6±0.1 |
| D2 | 3.05 Typ. | W | 1.3±0.2 |
| E | 6.5±0.1 | | |

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%

| Characteristics | Symbol | Value | | Unit |
|--|-----------|----------------------|-------------------|---------------|
| Maximum Repetitive Peak Reverse Voltage | V_{RRM} | 50 | | V |
| Working Peak Reverse Voltage | V_{RWM} | 50 | | V |
| Maximum DC Blocking Voltage | V_{DC} | 50 | | V |
| RMS Reverse Voltage | V_{RMS} | 35 | | V |
| Forward Voltage Drop ¹⁾ $I_F=10A, T_J=25^\circ C$ $I=10A, T=125^\circ C$ | V_F | Typ. 0.42 0.38 | Max. 0.46 - | V |
| Maximum Reverse Current at Rated V_{RRM} $T_J=25^\circ C$ $T=125^\circ C$ | I_R | Typ. 120 35 | Max. 300 50 | μA mA |
| Maximum Average Forward Rectified Current | I_O | 10 | | A |
| Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method) | I_{FSM} | 280 | | A |
| Peak Repetitive Reverse Current at $t_p=2 \mu s, 1 \text{ kHz}$, | I_{RRM} | 2.0 | | A |
| Voltage rate of change(Rated VR) | dv/dt | 10,000 | | V/us |
| Operating Temperature Range | T_J | -65 to +150 | | °C |
| Storage Temperature Range | T_{STG} | -65 to +175 | | °C |

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

FIG. 1 MAXIMUM FORWARD CURRENT DERATING CURVE

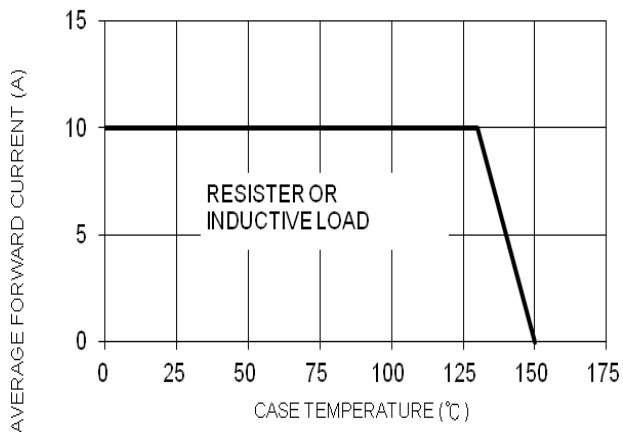


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

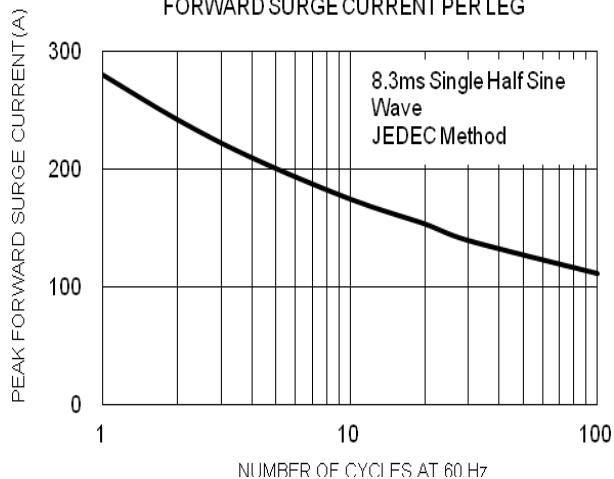


FIG. 3 TYPICAL FORWARD CHARACTERISTICS PER LEG

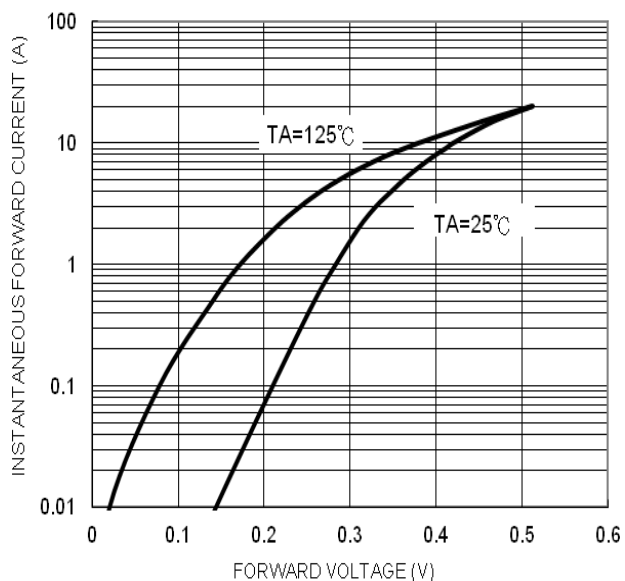


FIG. 4 TYPICAL REVERSE CHARACTERISTICS PER LEG

