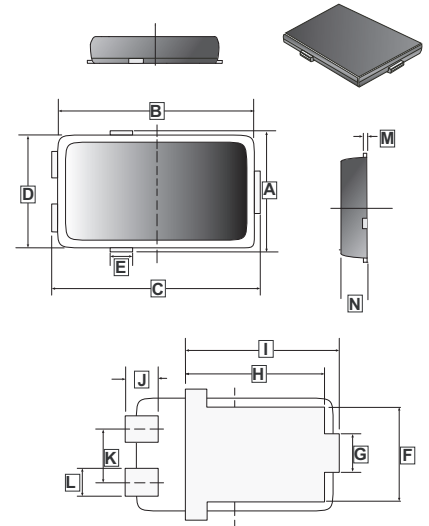


RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

FEATURES

- Low leakage
- Low forward voltage drop
- Super long operating life
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0

TO-277A



PACKAGE INFORMATION

| Package | MPQ | LeaderSize |
|---------|-----|------------|
| TO-277A | 4K | 13' inch |

| REF. | Millimeter | | REF. | Millimeter | |
|------|------------|------|------|------------|------|
| | Min. | Max. | | Min. | Max. |
| A | 4.4 | 4.8 | H | 4.05 Typ. | |
| B | 5.9 | 6.3 | J | 4.4 | 4.8 |
| C | 6.3 | 6.7 | K | 2.0 | 2.2 |
| D | 4.1 | 4.5 | L | 1.0 | 1.4 |
| E | 0.65 Typ. | | M | 0.15 | 0.35 |
| F | 3.55 | 3.95 | N | 1.0 | 1.4 |
| G | 1.85 | 2.25 | | | |

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

| Parameters | Symbol | Part numbers | | | Units | Testing conditions |
|---|-----------------|--------------|---------|----------|-------|---|
| | | SMP1240 | SMP1260 | SMP12100 | | |
| Maximum Repetitive peak Reverse Voltage | V_{RRM} | 40 | 60 | 100 | V | |
| Maximum DC Blocking Voltage | V_{DC} | 40 | 60 | 100 | V | |
| Maximum Forward Voltage | V_F | 0.55 | 0.7 | 0.85 | V | $I_F=6A, T_A=25^\circ C$ |
| | | 0.5 | 0.65 | 0.8 | V | $I_F=3A, T_A=125^\circ C$ |
| | | 0.38 | 0.58 | 0.68 | | |
| Maximum Average Forward Rectified Current | $I_{F(AV)}$ | 12 | | | A | $T_L = 90^\circ C$ |
| Peak Forward Surge Current | I_{FSM} | 300 | | | A | 8.3ms single half sine-wave superimposed on rated load (JEDEC method) |
| Maximum DC Reverse Current at Rated DC Blocking Voltage | I_{R1} | 0.5 | | | mA | $T_A=25^\circ C$ |
| | I_{R2} | 1 | 0.5 | | | $T_A=75^\circ C, 50\% V_{RRM}, typ.$ |
| | I_{R3} | 50 | 30 | | | $T_A=100^\circ C$ |
| Thermal Resistance junction to Ambient | $R_{\theta JA}$ | 100 | | | K / W | |
| Thermal Resistance junction to Lead | $R_{\theta JL}$ | 3 | | | K / W | |
| Operating Temperature Range | T_J | -55 ~ 150 | | | °C | $\leq 1h$ |
| In DC forward mode | | 200 (Note 1) | | | | |
| Storage Temperature Range | T_{STG} | -55 ~ 150 | | | °C | |

Notes :

1. Meets the requirements of IEC 61215 Ed.2 bypass diode thermal test.