

### Dual Common-Cathode Ultra Low VF Schottky Rectifier

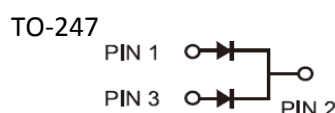
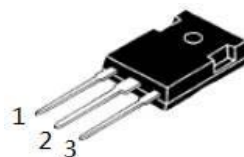
#### FEATURES AND BENEFITS

- Low power loss, high efficiency operation
- Low forward voltage drop
- Fast switching capability
- High forward surge capability
- Excellent High Temperature Stability

#### MECHANICAL DATA

- Epoxy : UL94 V-0 rated flame retardant
- Case: TO-247 Package
- Terminals: Matte Tin annealed over copper
- Weight: Approximated 2.03 grams

| Primary Characteristic                     |        |
|--------------------------------------------|--------|
| $I_O$                                      | 2X100A |
| $V_{RRM}$                                  | 60V    |
| $I_{FSM}$                                  | 880A   |
| $V_F$ Typical=15A, $T_J=125^\circ\text{C}$ | 0.35V  |
| $T_{Jmax}$                                 | 150°C  |



| Maximum Ratings (TA=25°C unless otherwise specified)                                               |         |          |                  |       |      |      |
|----------------------------------------------------------------------------------------------------|---------|----------|------------------|-------|------|------|
| Characteristics                                                                                    |         |          | Symbol           | Value |      | Unit |
| Peak Repetitive Reverse Voltage                                                                    |         |          | V <sub>RRM</sub> | 60    |      | V    |
| Working Peak Reverse Voltage                                                                       |         |          | V <sub>RWM</sub> | 60    |      | V    |
| DC Blocking Voltage                                                                                |         |          | V <sub>DC</sub>  | 60    |      | V    |
| RMS Reverse Voltage                                                                                |         |          | V <sub>RMS</sub> | 42    |      | V    |
| Average Forward Rectified Current (per diode)                                                      |         |          | I <sub>O</sub>   | 100   |      | Amps |
| Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method) |         |          | I <sub>FSM</sub> | 880   |      | Amps |
| Electrical Characteristics (TA=25°C unless otherwise specified )                                   |         |          |                  |       |      |      |
| Characteristics                                                                                    |         |          | Symbol           | Typ.  | Max. | Unit |
| Forward Voltage Drop <sup>(1)</sup>                                                                | IF=15A  | Ta=25°C  | V <sub>F</sub>   | 0.46  | 0.50 | V    |
|                                                                                                    | IF=100A | Ta=25°C  | V <sub>F</sub>   | 0.74  | 0.78 | V    |
|                                                                                                    | IF=15A  | Ta=125°C | V <sub>F</sub>   | 0.35  | 0.39 | V    |
|                                                                                                    | IF=100A | Ta=125°C | V <sub>F</sub>   | 0.67  | 0.71 | V    |
| Reverse Current <sup>(2)</sup>                                                                     | VR=60V  | Ta=25°C  | I <sub>R</sub>   | 30    | 90   | μA   |
|                                                                                                    | VR=60V  | Ta=125°C | I <sub>R</sub>   | 10    | 30   | mA   |

| THERMAL CHARACTERISTICS (TA = 25 °C unless otherwise noted) |        |                 |             |      |
|-------------------------------------------------------------|--------|-----------------|-------------|------|
| Characteristics                                             |        | Symbol          | Value       | Unit |
| Typical Thermal Resistance, junction to case                | TO-247 | $R_{\theta JC}$ | 2           | °C/W |
| Operating Temperature Range ( in DC Mode)                   |        | $T_J$           | -65 to +150 | °C   |
| Storage Temperature Range                                   |        | $T_{STG}$       | -65 to +150 | °C   |

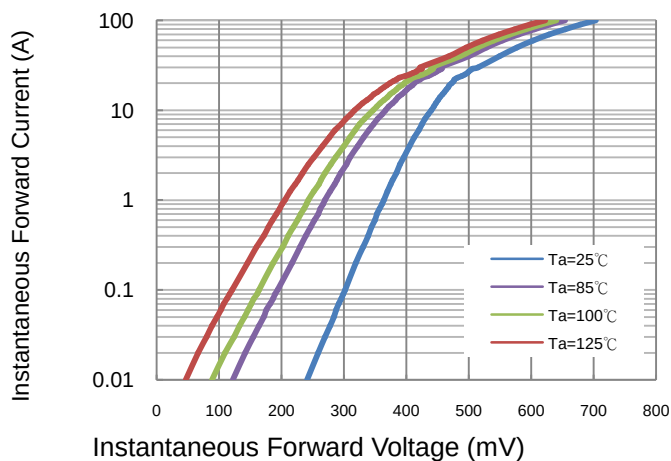
Notes (1): Pulse test: 300μs pulse width, 1% duty cycle.

Notes (2): Pulse width ≤ 40ms

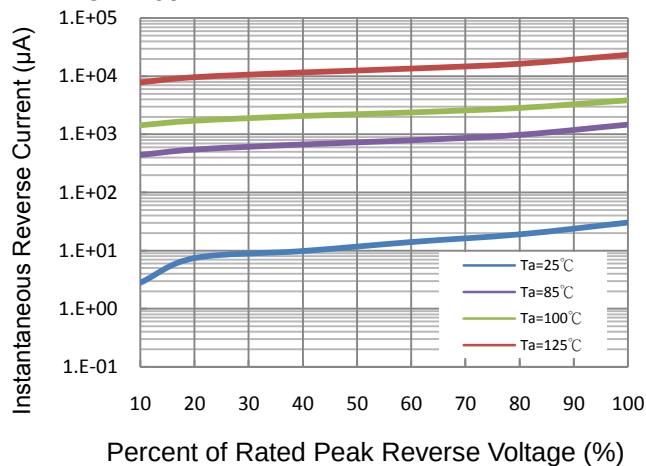
Notes (3): FR-4 PCB, 2oz copper. Minimum recommended pad layout

### RATINGS AND CHARACTERISTICS CURVES

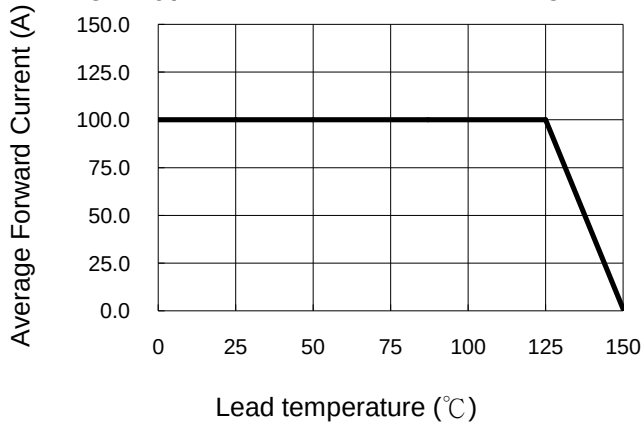
**Fig 1. Typical Forward Characteristics**



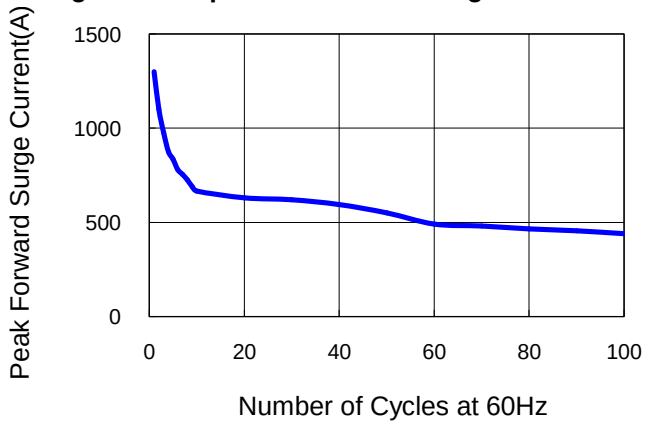
**Fig 2. Typical Reverse Characteristics**



**Fig 3. Typical Forward Current Derating Curve**

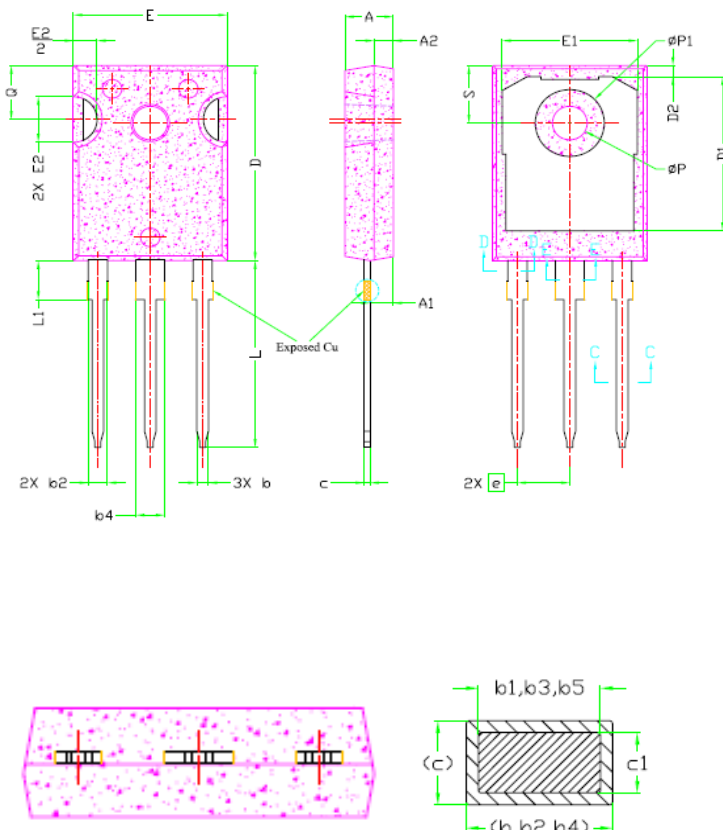


**Fig 4. Non-repetitive Forward Surge Current**

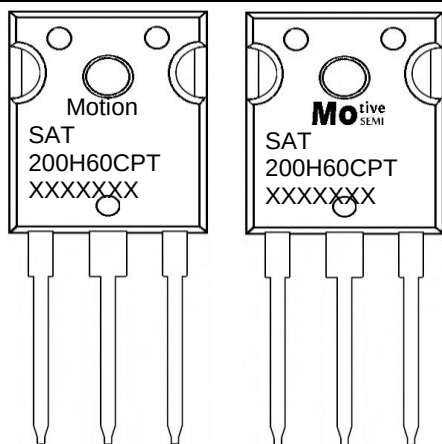


### Package Outline Dimensions (in millimeters)

| TO-247 |             |       |        |      |
|--------|-------------|-------|--------|------|
| SYMBOL | Dimensions  |       |        |      |
|        | Millimeters |       | Inches |      |
|        | Min         | Max   | Min    | Max  |
| A      | 4.83        | 5.21  | 0.19   | 0.21 |
| A1     | 2.29        | 2.55  | 0.09   | 0.10 |
| A2     | 1.50        | 2.49  | 0.06   | 0.10 |
| b      | 1.12        | 1.33  | 0.04   | 0.05 |
| b1     | 1.12        | 1.28  | 0.04   | 0.05 |
| b2     | 1.91        | 2.39  | 0.08   | 0.09 |
| b3     | 1.91        | 2.34  | 0.08   | 0.09 |
| b4     | 2.87        | 3.22  | 0.11   | 0.13 |
| b5     | 2.87        | 3.18  | 0.11   | 0.13 |
| c      | 0.55        | 0.69  | 0.02   | 0.03 |
| c1     | 0.55        | 0.65  | 0.02   | 0.03 |
| D      | 20.80       | 21.10 | 0.82   | 0.83 |
| D1     | 16.25       | 17.65 | 0.64   | 0.69 |
| D2     | 0.51        | 1.35  | 0.02   | 0.05 |
| E      | 15.75       | 16.13 | 0.62   | 0.64 |
| E1     | 13.46       | 14.16 | 0.53   | 0.56 |
| E2     | 4.32        | 5.49  | 0.17   | 0.22 |
| e      | 5.44        |       |        |      |
| L      | 19.81       | 20.32 | 0.78   | 0.80 |
| L1     | 4.10        | 4.40  | 0.16   | 0.17 |
| ψP     | 3.56        | 3.65  | 0.14   | 0.14 |
| ψp1    | 7.19REF     |       |        |      |
| Q      | 5.39        | 6.20  | 0.21   | 0.24 |
| S      | 6.04        | 6.30  | 0.24   | 0.25 |



### Marking Information



Template 1 - Old

Template 2 - New

Motion

**Motive SEMI**

SAT

200H60CPT

XXXXXXX

CPT=TO-247

=Series Name (Template 1)

=Series Name (Template 2)

=Product Type Marking Code

=Part Number Marking Code

=Product Tracking Code

=Dual TO-247