

**Silicon Standard
Recovery Diode**

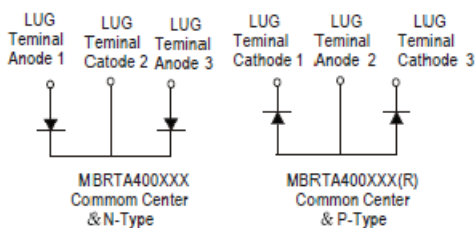
$V_{RRM} = 600\text{ V} - 1600\text{ V}$

$I_F = 400\text{ A}$

Features

- High Surge Capability
- Types up to 1600 V V_{RRM}

Heavy Three Tower Package



Maximum ratings, at $T_j = 25\text{ °C}$, unless otherwise specified

| Parameter | Symbol | Conditions | MSRTA40060(A) | MSRTA40080(A) | MSRTA400100(A) | Unit |
|--|------------|--|---------------|---------------|----------------|------|
| Repetitive peak reverse voltage | V_{RRM} | | 600 | 800 | 1000 | V |
| RMS reverse voltage | V_{RMS} | | 420 | 560 | 700 | V |
| DC blocking voltage | V_{DC} | | 600 | 800 | 1000 | V |
| Continuous forward current | I_F | $T_C \leq 125\text{ °C}$ | 400 | 400 | 400 | A |
| Surge non-repetitive forward current, Half Sine Wave | $I_{F,SM}$ | $T_C = 25\text{ °C}$, $t_p = 8.3\text{ ms}$ | 4150 | 4150 | 4150 | A |
| Operating temperature | T_j | | -40 to 175 | -40 to 175 | -40 to 175 | °C |
| Storage temperature | T_{stg} | | -40 to 175 | -40 to 175 | -40 to 175 | °C |

Electrical characteristics, at $T_j = 25\text{ °C}$, unless otherwise specified

| Parameter | Symbol | Conditions | MSRTA40060(A) | MSRTA40080(A) | MSRTA400100(A) | Unit |
|-----------------------|--------|--|---------------|---------------|----------------|---------------|
| Diode forward voltage | V_F | $I_F = 400\text{ A}$, $T_j = 25\text{ °C}$ | 1.2 | 1.2 | 1.2 | V |
| Reverse current | I_R | $V_R = 600\text{ V}$, $T_j = 25\text{ °C}$ | 25 | 25 | 25 | μA |
| | | $V_R = 600\text{ V}$, $T_j = 150\text{ °C}$ | 10 | 10 | 10 | mA |

Thermal characteristics

| Parameter | Symbol | MSRTA40060(A) | MSRTA40080(A) | MSRTA400100(A) | Unit |
|-------------------------------------|------------|---------------|---------------|----------------|------|
| Thermal resistance, junction - case | R_{thJC} | 0.14 | 0.14 | 0.14 | °C/W |

Figure .1- Typical Forward Characteristics

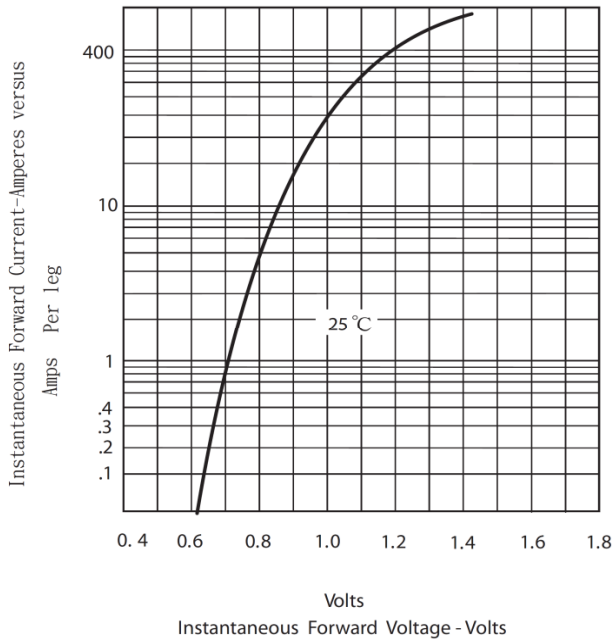


Figure.2 Forward Derating Curve

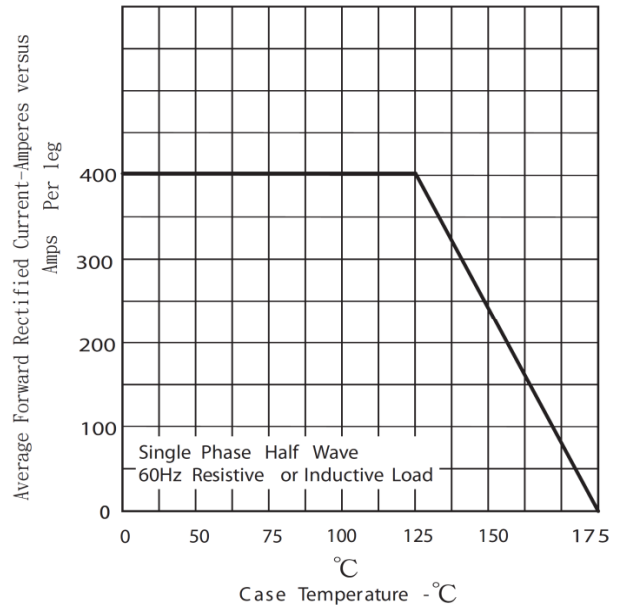


Figure.3-Peak Forward Surge Current

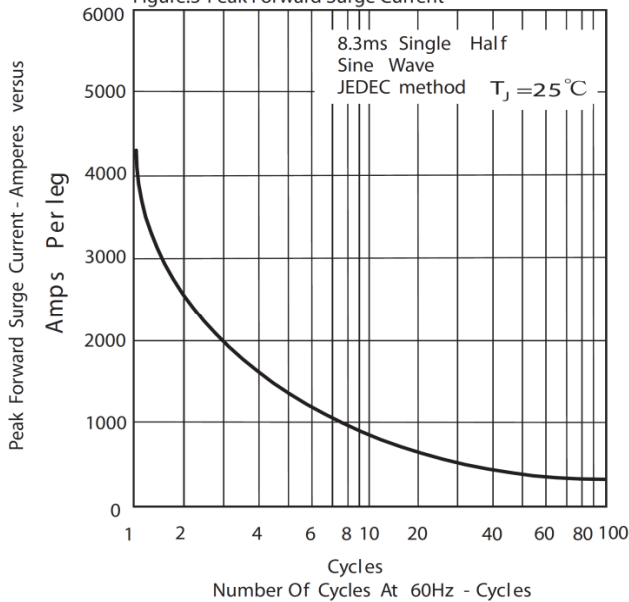


Figure .4 -Typical Reverse Characteristics

