

Silicon Standard Recovery Diode

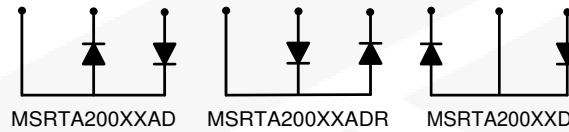
$V_{RRM} = 600\text{ V} - 1000\text{ V}$

$I_{F(AV)} = 200\text{ A}$

Features

- High Surge Capability
- Types from 600 V to 1000 V V_{RRM}
- Isolation Type Package
- Electrically Isolated Base Plate
- Not ESD Sensitive

Heavy Three Tower Package



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

| Parameter | Symbol | Conditions | MSRTA20060(A)D | MSRTA20080(A)D | MSRTA200100(A)D | Unit |
|---------------------------------|-----------|------------|----------------|----------------|-----------------|------|
| Repetitive peak reverse voltage | V_{RRM} | | 600 | 800 | 1000 | V |
| DC blocking voltage | V_{DC} | | 600 | 800 | 1000 | V |
| Operating temperature | T_j | | -55 to 150 | -55 to 150 | -55 to 150 | °C |
| Storage temperature | T_{stg} | | -55 to 150 | -55 to 150 | -55 to 150 | °C |

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

| Parameter | Symbol | Conditions | MSRTA20060(A)D | MSRTA20080(A)D | MSRTA200100(A)D | Unit |
|--|-------------|--|----------------|----------------|-----------------|------|
| Average forward current (per leg) | $I_{F(AV)}$ | $T_C = 125\text{ °C}$ | 200 | 200 | 200 | A |
| Peak forward surge current (per leg) | I_{FSM} | $t_p = 8.3\text{ ms}$, half sine | 3000 | 3000 | 3000 | A |
| Maximum instantaneous forward voltage (per leg) | V_F | $I_{FM} = 200\text{ A}$, $T_j = 25\text{ °C}$ | 1.1 | 1.1 | 1.1 | V |
| Maximum instantaneous reverse current at rated DC blocking voltage (per leg) | I_R | $T_j = 25\text{ °C}$ | 10 | 10 | 10 | μA |
| | | $T_j = 150\text{ °C}$ | 5 | 5 | 5 | mA |

Thermal characteristics

| | | | | | | |
|---|-----------------|--|------|------|------|------|
| Maximum thermal resistance, junction - case (per leg) | $R_{\theta jc}$ | | 0.35 | 0.35 | 0.35 | °C/W |
|---|-----------------|--|------|------|------|------|

Figure .1- Typical Forward Characteristics

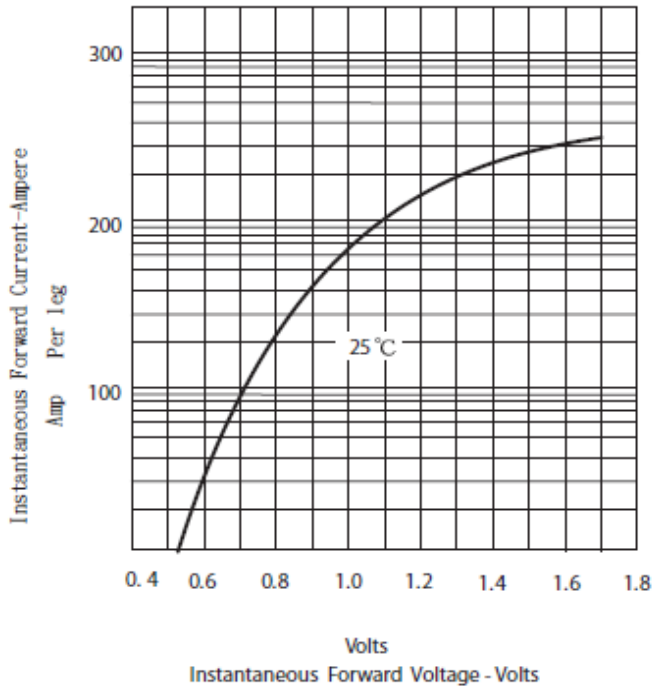


Figure. 2 Forward Derating Curve

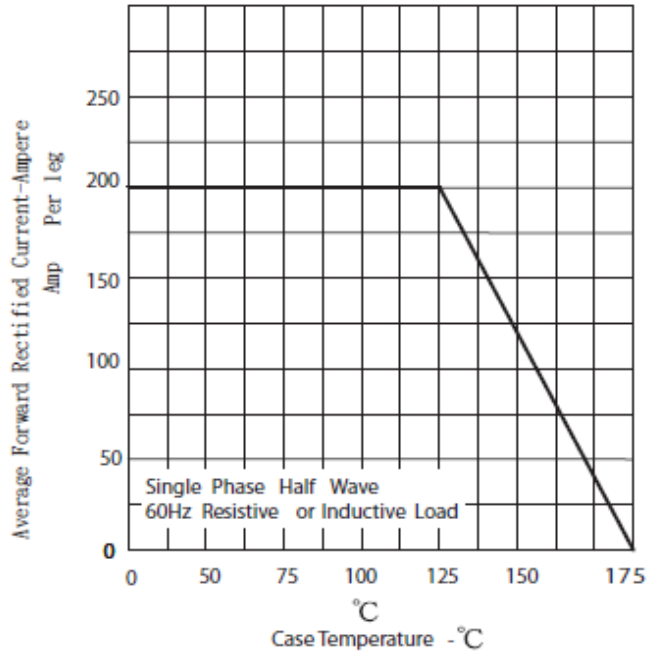


Figure .4 Typical Reverse Characteristics

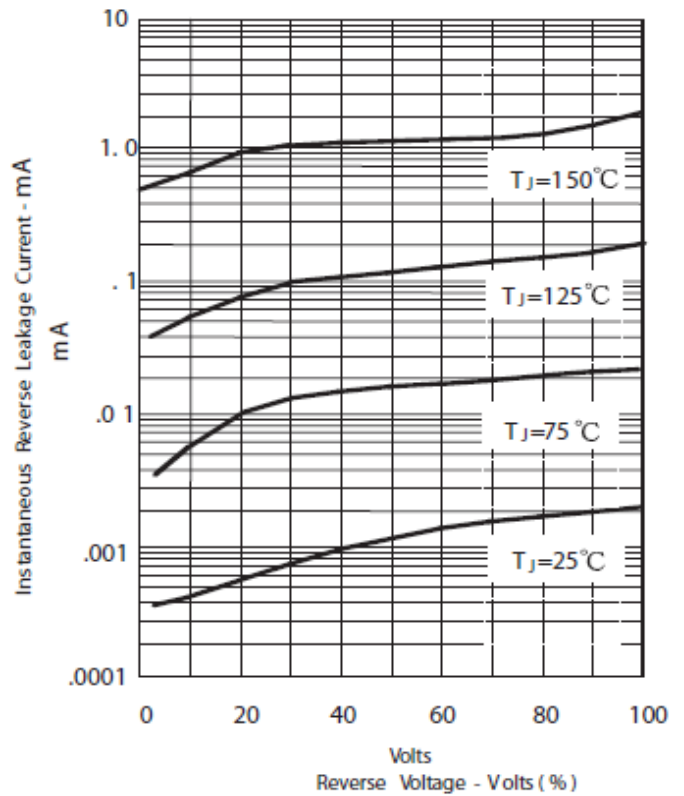
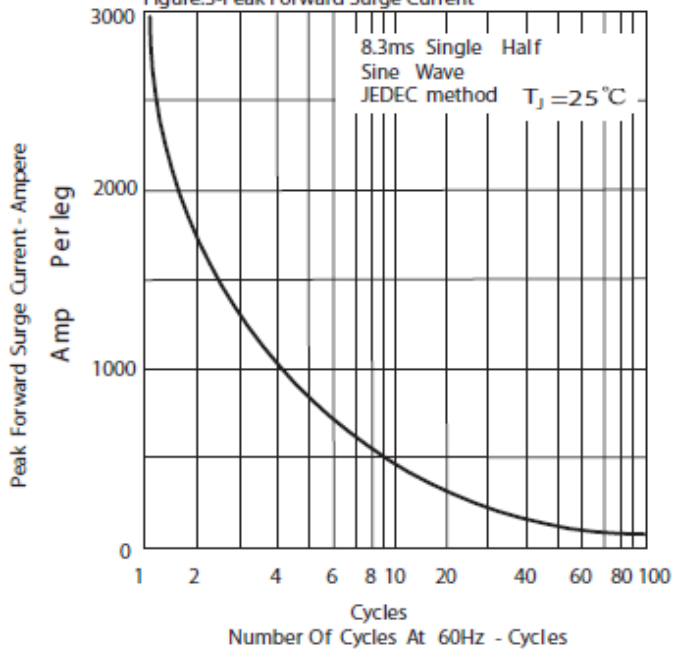
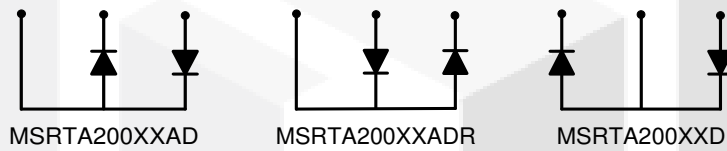
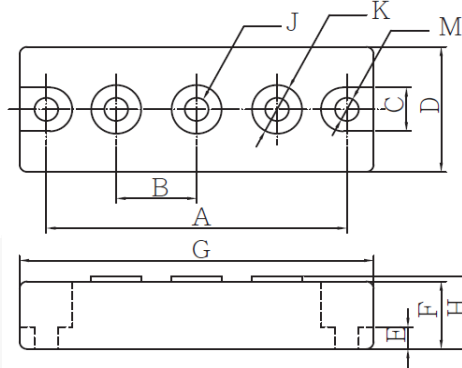


Figure.3-Peak Forward Surge Current



Package dimensions and terminal configuration

Product is marked with part number and terminal configuration.



| DIMENSIONS | | | | | |
|------------|-----------------|-------|-------|-------|------|
| DIM | INCHES | | MM | | NOTE |
| | MIN | MAX | MIN | MAX | |
| A | 3.150 | NOM | 80.01 | NOM | |
| B | .872 | .892 | 22.15 | 22.65 | |
| C | .465 | .479 | 11.82 | 12.18 | |
| D | 1.337 | 1.356 | 33.95 | 34.45 | |
| E | .230 | .234 | 5.84 | 6.16 | |
| F | .725 | REF | 18.42 | REF | |
| G | 3.668 | 3.768 | 93.17 | 95.71 | |
| H | --- | .791 | --- | 20.10 | |
| J | 1/4-20 UNC FULL | | | | |
| K | .509 | .538 | 12.92 | 13.68 | ∅ |
| M | .238 | .258 | 6.05 | 6.55 | ∅ |