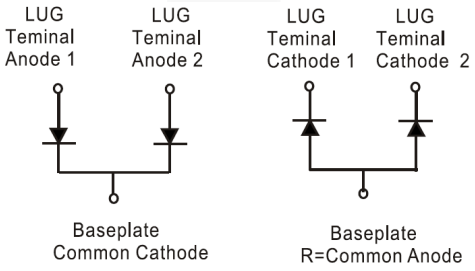
# Silicon Super Fast Recovery Diode

$V_{RRM}$ = 400 V - 600 V
$I_{F(AV)}$ = 100 A

**Features**

- High Surge Capability
- Types from 400 V to 600 V $V_{RRM}$
- Not ESD Sensitive

**TO-244 Package**






RoHS COMPLIANT

REACH COMPLIANCE

**Maximum ratings, at $T_j$ = 25 °C, unless otherwise specified ("R" devices have leads reversed)**

| Parameter | Symbol | Conditions | MURF10040(R) | MURF10060(R) | Unit |
|---|---|---|---|---|---|
| Repetitive peak reverse voltage | $V_{RRM}$ | | 400 | 600 | V |
| RMS reverse voltage | $V_{RMS}$ | | 280 | 420 | V |
| DC blocking voltage | $V_{DC}$ | | 400 | 600 | V |
| Operating temperature | $T_j$ | | -55 to 150 | -55 to 150 | °C |
| Storage temperature | $T_{stg}$ | | -55 to 150 | -55 to 150 | °C |

**Electrical characteristics, at Tj = 25 °C, unless otherwise specified**

| Parameter | Symbol | Conditions | MURF10040(R) | MURF10060(R) | Unit |
|---|---|---|---|---|---|
| Average forward current (per pkg) | $I_{F(AV)}$ | $T_C$ = 140 °C | 100 | 100 | A |
| Peak forward surge current (per leg) | $I_{FSM}$ | $t_p$ = 8.3 ms, half sine | 1500 | 1500 | A |
| Maximum instantaneous forward voltage (per leg) | $V_F$ | $I_{FM}$ = 50 A, $T_j$ = 25 °C | 1.3 | 1.70 | V |
| Maximum reverse current at rated DC blocking voltage (per leg) | $I_R$ | $T_j$ = 25 °C | 25 | 25 | µA |
| | | $T_j$ = 125 °C | 3 | 3 | mA |
| Maximum reverse recovery time (per leg) | $T_{rr}$ | $I_F$=0.5 A, $I_R$=1.0 A, $I_{RR}$= 0.25 A | 90 | 110 | nS |
| **Thermal characteristics** | | | | | |
| Maximum thermal resistance, junction - case (per leg) | $R_{\theta JC}$ | | 1.00 | 1.00 | °C/W |

Figure .1- Typical Forward Characteristics

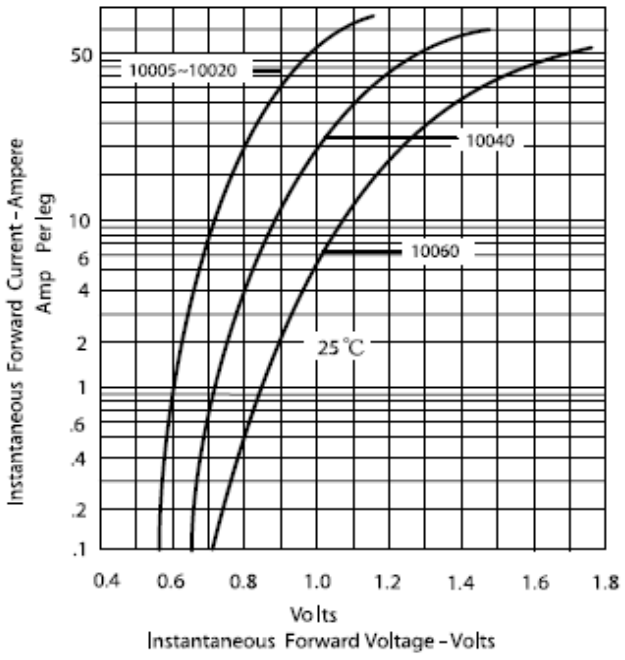



Figure .2- Forward Derating Curve

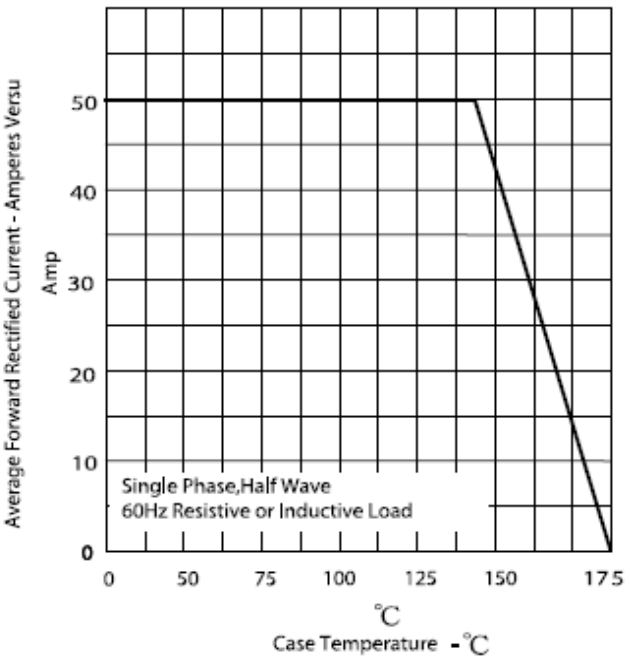



Figure.3- Peak Forward Surge Current

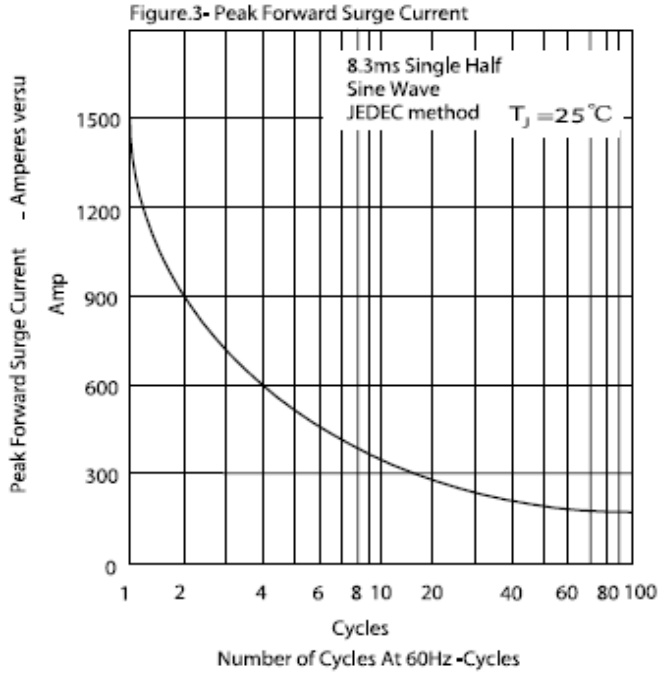
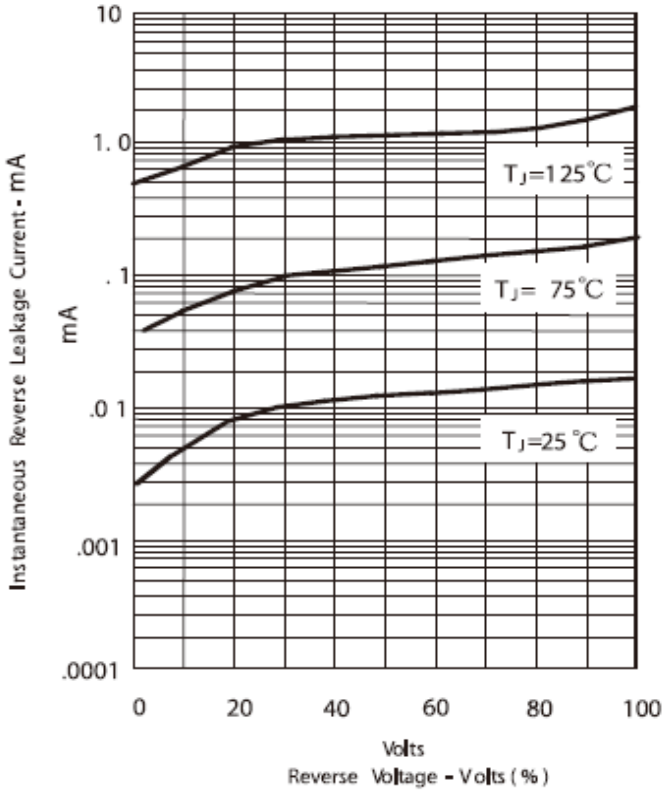
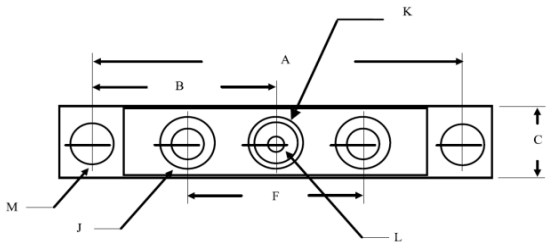


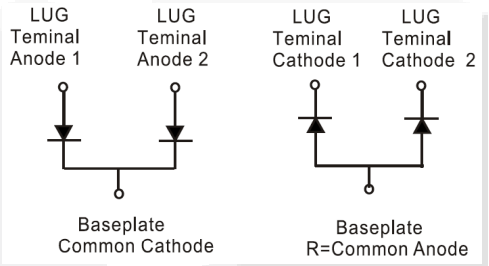

Figure .4 -Typical Reverse Characteristics



## Package dimensions and terminal configuration

Product is marked with part number and terminal configuration.




| DIM | Inches | | Millimeters | |
|---|---|---|---|---|
| | Min | Max | Min | Max |
| A | 3.144 | NOM | 79.85 | NOM |
| B | 1.565 | 1.585 | 39.75 | 40.26 |
| C | 0.700 | 0.800 | 17.78 | 20.32 |
| E | 0.119 | 0.14 | 3.02 | 3.50 |
| F | 1.358 | REF. | 34.50 | REF. |
| G | 3.55 | 3.65 | 90.17 | 92.71 |
| H | 0.604 | 0.65 | 15.35 | 16.51 |
| J | 1/4-20 UNC FULL | | | |
| K | 0.380 | 0.410 | 9.65 | 10.41 |
| L | 0.185 | 0.195 | 4.70 | 4.95 |
| M | 0.275 | 0.295 | 6.99 | 7.49 |