

Silicon Bridge Rectifier

$V_{RRM} = 50\text{ V} - 1000\text{ V}$

$I_F = 15\text{ A}$

Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Types up to 1000 V V_{RRM}
- Ideal for printed circuit board
- High surge overload rating
- High temperature soldering guaranteed: 260°C/ 10 seconds, 0.375(9.5mm) lead length
- Glass passivated chip junction
- High case dielectric strength 1500 V_{RMS}

GBU Package



Mechanical Data

Case: Molded plastic body over passivated junctions

Mounting position: Any

Terminals: Plated leads, solderable per MIL-STD-750

Method 2026 guaranteed

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

| Parameter | Symbol | Conditions | GBU15J | GBU15K | GBU15M | 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 | $T_C \leq 100\text{ °C}$ | 15 | 15 | 15 | A |
| Surge non-repetitive forward current, Half Sine Wave | $I_{F,SM}$ | $T_C = 25\text{ °C}$, $t_p = 8.3\text{ ms}$ | 240 | 240 | 240 | A |
| 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

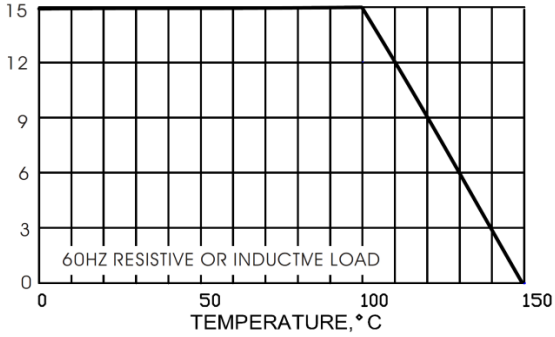
| Parameter | Symbol | Conditions | GBU15J | GBU15K | GBU15M | Unit |
|-----------------------|--------|---|--------|--------|--------|---------------|
| Diode forward voltage | V_F | $I_F = 15\text{ A}$, $T_j = 25\text{ °C}$ | 1.1 | 1.1 | 1.1 | V |
| Reverse current | I_R | $V_R = 50\text{ V}$, $T_j = 25\text{ °C}$ | 5 | 5 | 5 | μA |
| | | $V_R = 50\text{ V}$, $T_j = 125\text{ °C}$ | 500 | 500 | 500 | |

Thermal characteristics

| | | | | | | |
|-------------------------------------|------------|--|-----|-----|-----|------|
| Thermal resistance, junction - case | R_{thJC} | | 2.2 | 2.2 | 2.2 | °C/W |
|-------------------------------------|------------|--|-----|-----|-----|------|

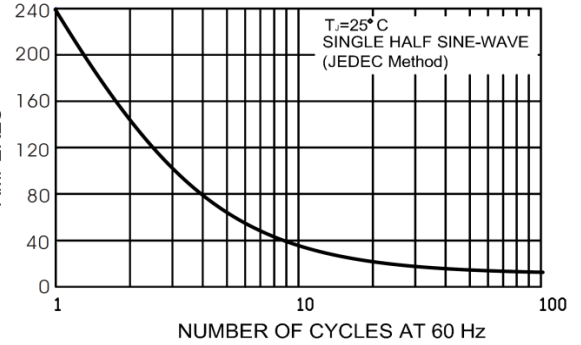
AVERAGE FORWARD OUTPUT CURRENT,
AMPERES

FIG.1-DERATIVE CURVE FOR OUTPUT RECTIFIER CURRENT



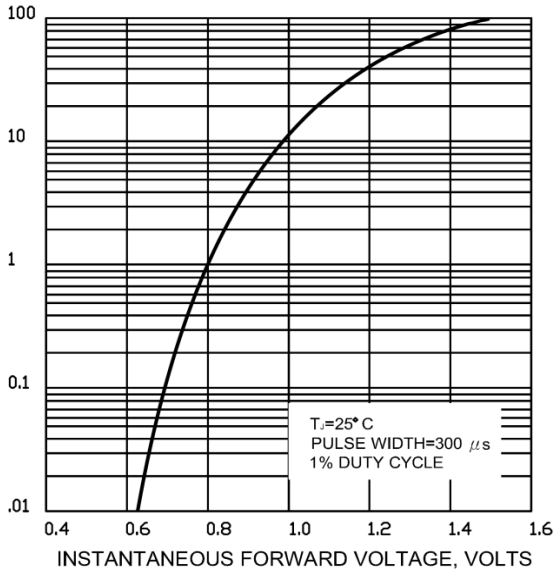
PEAK FORWARD SURGE CURRENT,
AMPERES

FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG



INSTANTANEOUS FORWARD CURRENT, AMPERES

FIG.3-TYPICAL FORWARD CHARACTERISTICS PER LEG



INSTANTANEOUS REVERSE CURRENT, MICROAMPERES

FIG.4-TYPICAL REVERSE CHARACTERISTICS PER LEG

