Elektronische Bauelemente

# SBR4060RF

**Voltage 60V**

**40.0 Amp Schottky Barrier Rectifiers**

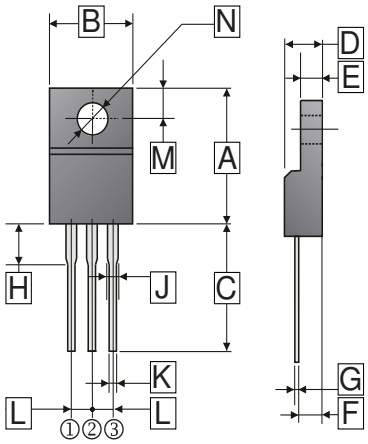
RoHS Compliant Product

A suffix of "-C" specifies halogen free

## FEATURES

- Superlow forward voltage drop
- Low reverse current
- High current capability
- High reliability
- High surge current capability
- Epitaxial construction

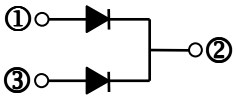
**ITO-220**




| REF. | Millimeter | | REF. | Millimeter | |
|---|---|---|---|---|---|
| | Min. | Max. | | Min. | Max. |
| A | 14.60 | 15.70 | H | 2.70 | 3.80 |
| B | 9.50 | 10.50 | J | 0.90 | 1.50 |
| C | 12.60 | 14.00 | K | 0.50 | 0.90 |
| D | 4.30 | 4.70 | L | 2.34 | 2.74 |
| E | 2.30 | 3.2 | M | 2.40 | 3.00 |
| F | 2.30 | 2.80 | N | ϕ3.0 | ϕ3.4 |
| G | 0.30 | 0.70 | | | |

## MECHANICAL DATA

- Case: Molded plastic
- Epoxy: UL94V-0 rate flame retardant
- Lead: Lead solderable per MIL-STD-202 method 208 guaranteed
- Polarity: As Marked
- Mounting position: Any
- Weight: 1.98 g (Approximate)




## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Rating 25℃ ambient temperature unless otherwise s pecified. Single phase half wave, 60Hz, resistive or inductive load.
For capacitive load, de-rate current by 20%.)

| Parameter | | Symbol | Rating | Unit |
|---|---|---|---|---|
| Maximum Recurrent Peak Reverse Voltage | | $V_{RRM}$ | 60 | V |
| Working Peak Reverse Voltage | | $V_{RSM}$ | 60 | V |
| Maximum DC Blocking Voltage | | $V_{DC}$ | 60 | V |
| Maximum Average Forward Rectified Current | (Per Leg) | $I_F$ | 20 | A |
| | (Per Device) | | 40 | |
| Peak Forward Surge Current, 8.3 ms single half sine-wave Superimposed on rated load (JEDEC method) | | $I_{FSM}$ | 320 | A |
| Maximum Instantaneous Forward Voltage | ($I_F$=20A, $T_J$=25℃, per leg) | $V_F$ | 0.7 | V |
| | ($I_F$=20A, $T_J$=125℃, per leg) | | 0.62 | |
| Maximum DC Reverse Current at Rated DC Blocking Voltage [3] | $T_J$=25℃ | $I_R$ | 0.5 | mA |
| | $T_J$=125℃ | | 100 | |
| Typical Junction Capacitance [1] | | $C_J$ | 811 | pF |
| Typical Thermal Resistance [2] | | $R_{\theta JC}$ | 4 | ℃ /W |
| Voltage Rate of Chance (Rated $V_R$) | | dv/dt | 10000 | V / μs |
| Operating Temperature Range | | $T_J$ | 125 | ℃ |
| Storage Temperature Range | | $T_{STG}$ | -50 ~ 150 | ℃ |

NOTES:

1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2. Thermal Resistance Junction to Case.
3. Pulse Test：Pulse Width = 300 μs, Duty Cycle ≦ 2.0%.

## RATINGS AND CHARACTERISTIC CURVES

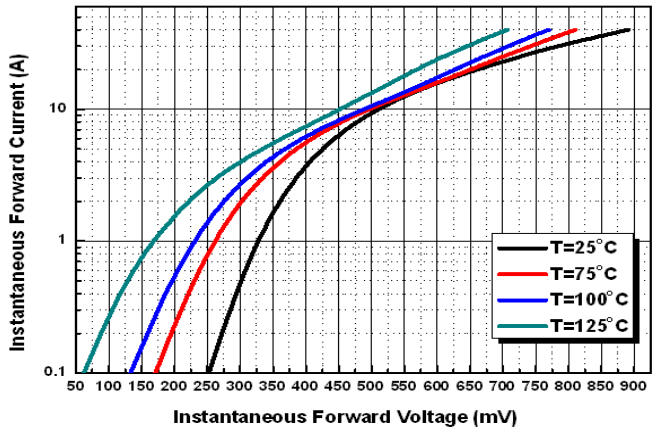



Figure 1. Typical Forward Characteristics per Diode

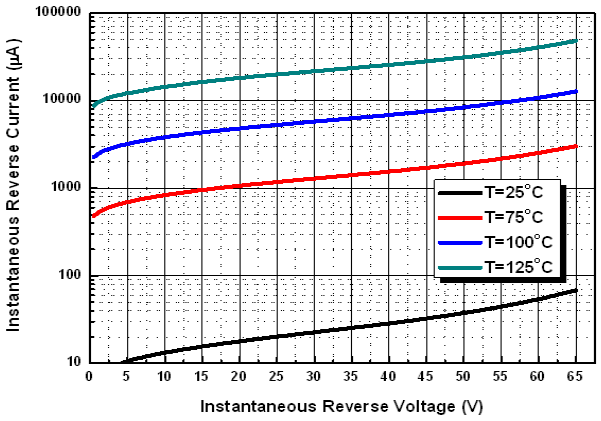



Figure 2. Typical Reverse Characteristics per Diode

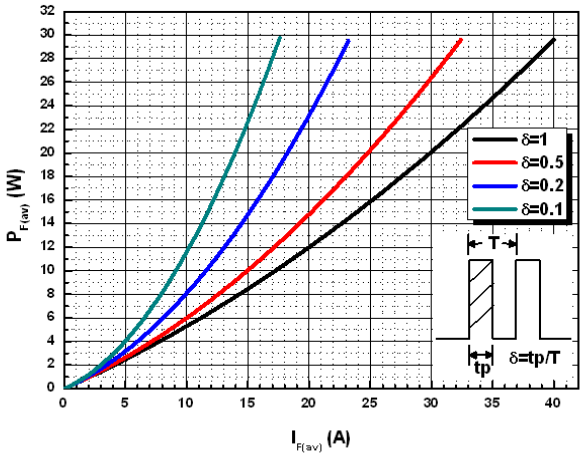



Figure 3. Average Forward Power Dissipation per Diode

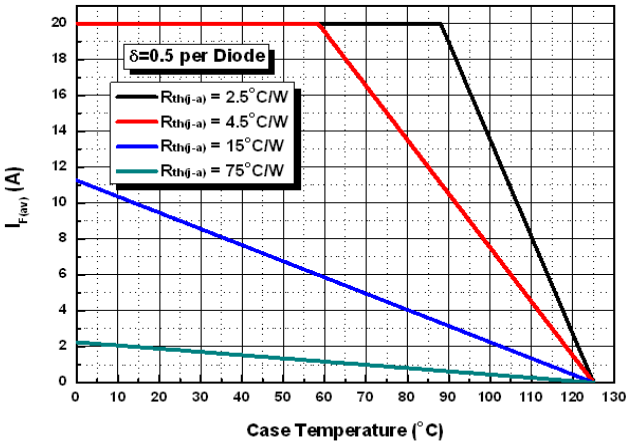



Figure 4. Current Derating Curves

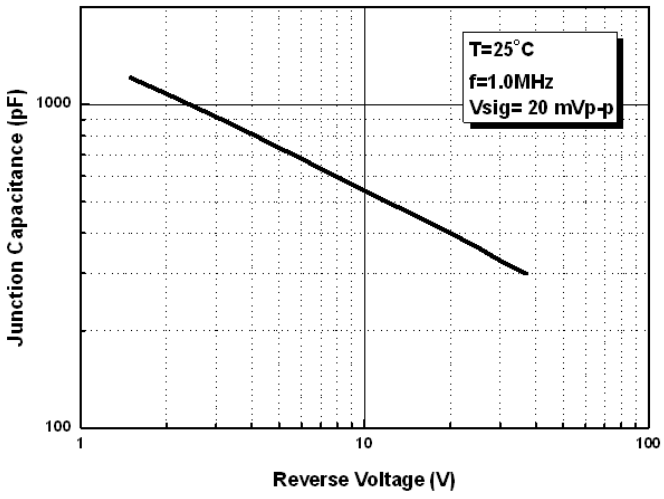



Figure 5. Typical Junction Capacitance per Diode