

Dual Schottky Barrier Power Rectifiers

Using the Schottky Barrier principle with a Refractory metal capable of high temperature operation metal. The proprietary barrier technology allows for reliable operation up to 150°C junction temperature. Typical application are in switching Mode Power Supplies such as adaptors, DC/DC converters, freewheeling and polarity protection diodes.

Features

- *Low Forward Voltage.
- *Low Switching noise.
- *High Current Capacity
- *Guarantee Reverse Avalanche.
- * Guard-Ring for Stress Protection.
- *Low Power Loss & High efficiency.
- *150°C Operating Junction Temperature
- *Low Stored Charge Majority Carrier Conduction.
- *Plastic Material used Carries Underwriters Laboratory

Flammability Classification 94V-O

* In compliance with EU RoHs 2002/95/EC directives



* Mounting Torqure: 5 in-lbs.Max.

MAXIMUM RATINGS

| Characteristic | Symbol | S30T200C | Unit |
|--|--|-------------|------------|
| Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage | $egin{array}{c} V_{RRM} \ V_{RWM} \ V_{R} \end{array}$ | 200 | V |
| RMS Reverse Voltage | V _{R(RMS)} | 140 | V |
| Average Rectifier Forward Current (per diode) Total Device (Rated V_R), | I _{F(AV)} | 15 30 | Α |
| Non-Repetitive Peak Surge Current (Surge applied at rate load conditions halfware, single phase, 60Hz) | I _{FSM} | 230 | Α |
| Operating and Storage Junction Temperature Range | T_J , T_stg | -65 to +150 | $^{\circ}$ |

THERMAL RESISTANCES

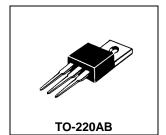
| Typical Thermal Resistance junction to case (per device) | _{Pi-c} 4 | °C/w |
|--|-------------------|------|
|--|-------------------|------|

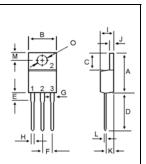
ELECTRICAL CHARACTERISTICS

| Characteristic | Symbol | Min | Тур. | Max. | Unit |
|---|---------|-----|------|------|------|
| Maximum Instantaneous Forward Voltage (per diode) | | | | | |
| $(I_F = 0.1 \text{ Amp } T_C = 25^{\circ}C)$ | V_{F} | | 0.43 | 0.48 | V |
| $(I_F = 15.0 \text{ Amp } T_C = 25^{\circ}C)$ | | | 0.90 | 0.93 | |
| Maximum Instantaneous Reverse Current | | | | | |
| (Rated DC Voltage, T _C = 25°C) | I_R | | 0.08 | 0.1 | mΑ |
| (Rated DC Voltage, T _C = 125°C) | | | 30 | | |

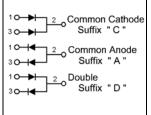
SCHOTTKY BARRIER RECTIFIERS

30 AMPERES 200 VOLTS





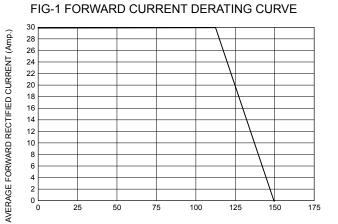
| DIM | MILLIMETERS | | |
|-------|-------------|-------|--|
| DIIVI | MIN | MAX | |
| Α | 14.68 | 15.32 | |
| В | 9.78 | 10.42 | |
| С | 5.02 | 6.52 | |
| D | 13.06 | 14.62 | |
| Ε | 3.57 | 4.07 | |
| F | 2.42 | 2.66 | |
| G | 1.20 | 1.47 | |
| Н | 0.72 | 0.96 | |
| - 1 | 4.22 | 4.98 | |
| J | 1.14 | 1.38 | |
| Κ | 2.20 | 2.98 | |
| L | 0.33 | 0.55 | |
| М | 2.48 | 2.98 | |
| 0 | 3.70 | 3.90 | |



S30T200C

25

50



CASE TEMPERATURE (℃)

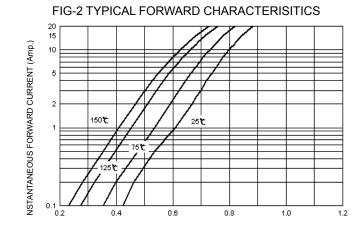
75

100

125

175

150



FORWARD VOLTAGE (Volts)

FIG-3 TYPICAL REVERSE CHARACTERISTICS

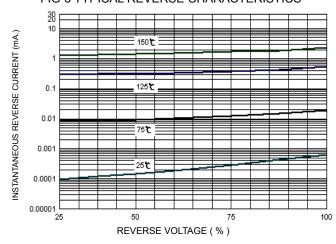


FIG-4 TYPICAL JUNCTION CAPACITANCE

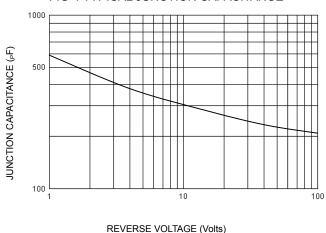
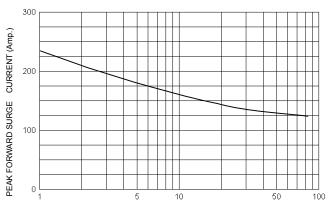


FIG-5 PEAK FORWARD SURGE CURRENT



NUMBER OF CYCLES AT 60 Hz



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MBRB30H30CT-1G BAT 15-04R E6152 JANTX1N5712-1 DMJ3940-000 SB007-03C-TB-E NRVBB20100CTT4G NRVBM120LT1G

NTSB30U100CT-1G CRG04(T5L,TEMQ) ACDBA1100LR-HF ACDBA1200-HF ACDBA240-HF ACDBA3100-HF CDBQC0530L-HF

ACDBA260LR-HF ACDBA1100-HF 10BQ015-M3/5BT NRVBM120ET1G VSSB410S-M3/5BT 1N5819T-G PDS1040Q-13 B160BQ-13-F

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