



**SINGLE-PHASE GLASS PASSIVATED
SILICON BRIDGE RECTIFIER**

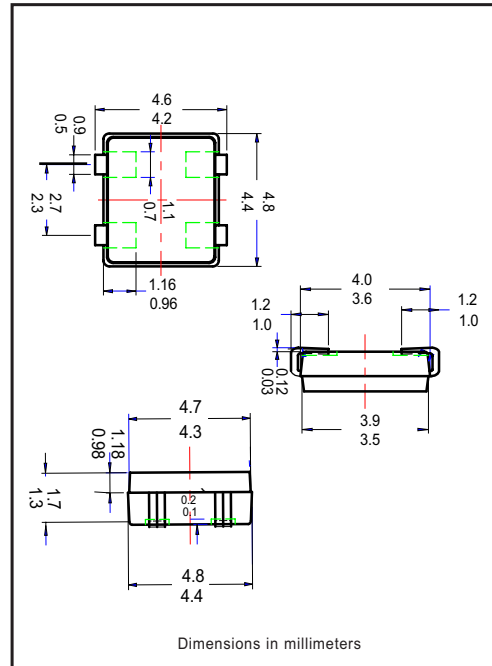
VOLTAGE RANGE 1000 Volts CURRENT 1.0 Ampere

FEATURES

- * Surge overload rating - 30 amperes peak
- * Ideal for printed circuit board
- * Reliable low cost construction utilizing molded
- * Glass passivated device
- * Polarity symbols molded on body
- * Mounting position: Any
- * Weight: 0.5 gram

MECHANICAL DATA

- * Epoxy: Device has UL flammability classification 94V-O
- * UL listed under the recognized component directory, file #E94233.



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.
resistive or inductive load.

MAXIMUM RATINGS (At $T_A = 25^\circ\text{C}$ unless otherwise noted)

| RATINGS | SYMBOL | MD7SJ-T-A01 | UNITS |
|---|-----------------|--------------|---------------------------|
| Maximum Recurrent Peak Reverse Voltage | V_{RRM} | 1000 | Volts |
| Maximum RMS Bridge Input Voltage | V_{RMS} | 700 | Volts |
| Maximum DC Blocking Voltage | V_{DC} | 1000 | Volts |
| Maximum Average Forward Output Current at $T_A = 40^\circ\text{C}$ | I_O | 1.0 | Amps |
| Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) | I_{FSM} | 30 | Amps |
| Typical Current Squarad Time | I^2t | 3.7 | A^2/Sec |
| Typical Thermal Resistance (Note 2) | $R_{\theta JA}$ | 85 | $^\circ\text{C}/\text{W}$ |
| | $R_{\theta JL}$ | 20 | |
| Operating and Storage Temperature Range | T_J, T_{STG} | -55 to + 150 | $^\circ\text{C}$ |

ELECTRICAL CHARACTERISTICS (At $T_A = 25^\circ\text{C}$ unless otherwise noted)

| CHARACTERISTICS | SYMBOL | MD7SJ-T-A01 | UNITS |
|--|--------|-----------------------------|-------|
| Maximum Forward Voltage Drop per Bridge Element at 1.0A DC | V_F | 1.05 | Volts |
| Maximum Reverse Current at Rated | I_R | @ $T_A = 25^\circ\text{C}$ | 5.0 |
| | | @ $T_A = 125^\circ\text{C}$ | 0.5 |
| DC Blocking Voltage per element | | | mAmps |

Note: 1. "Fully ROHS compliant", "100% Sn plating(Pb-free).
2. Thermal Resistance: PCB mounted.

2012-03
REV:B

RATING AND CHARACTERISTICS CURVES (MD7SJ-T-A01)

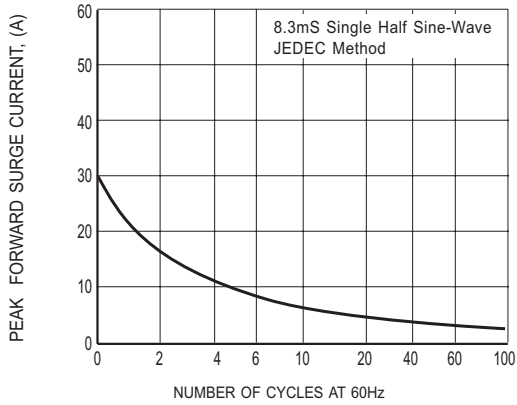


FIG. 1 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

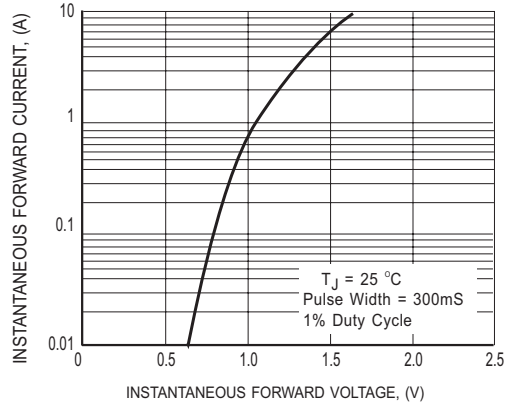


FIG. 2 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

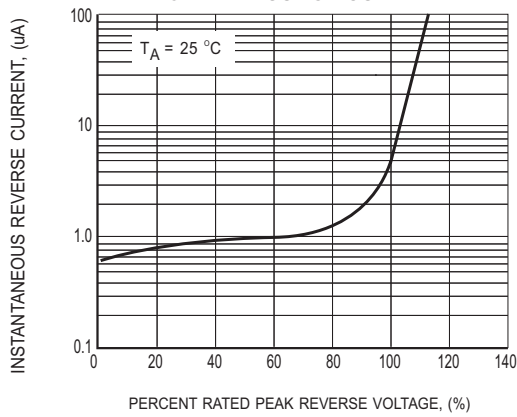


FIG. 3 TYPICAL REVERSE CHARACTERISTICS

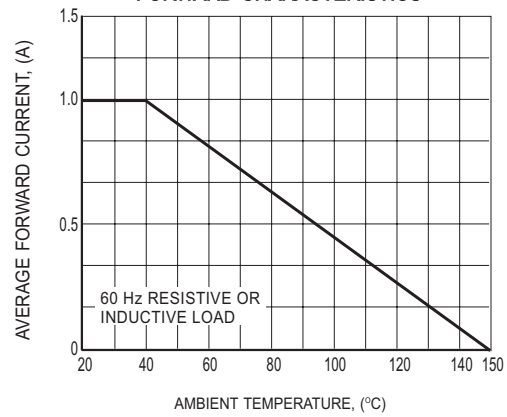
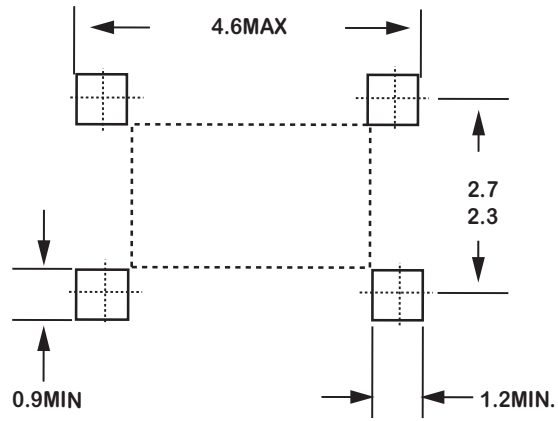


FIG. 4 TYPICAL FORWARD CURRENT DERATING CURVE

Mounting Pad Layout



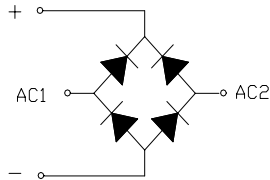
Dimensions in millimeters



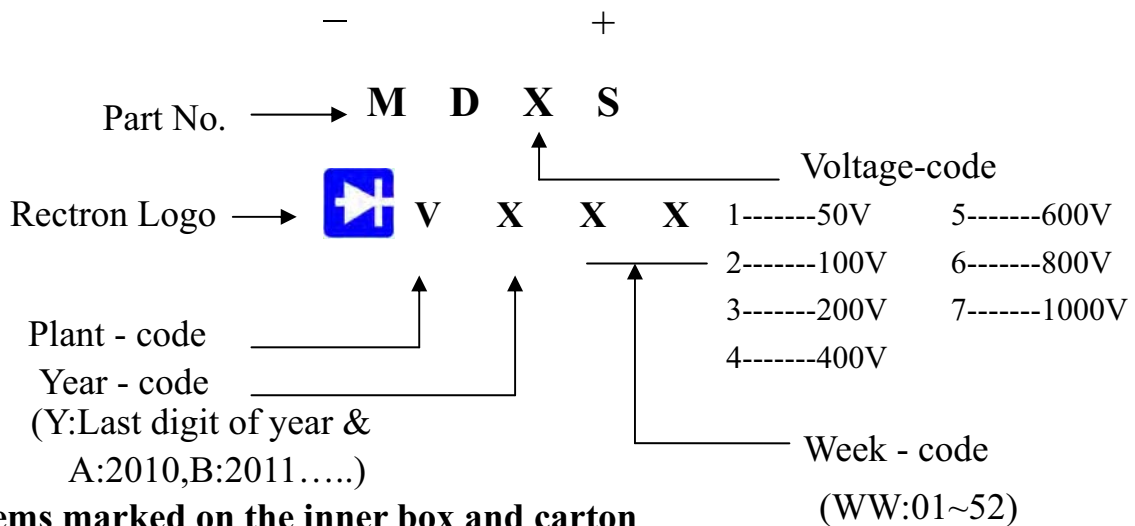
RECTRON

Attachment information about MDXS

1. Internal Circuit



2. Marking on the body



3. Items marked on the inner box and carton

3.1 On the box (for -B)

CUSTOMER
TYPE
LOT NO.
QUANTITY
Q.A.
DATE

3.2 On the carton

CUSTOMER
TYPE
QUANTITY
LOT NO.
REMARK

PACKAGING OF DIODE AND BRIDGE RECTIFIERS

REEL PACK

| PACKAGE | PACKING CODE | EA PER REEL | COMPONENT SPACE(mm) | TAPE SPACE (mm) | REEL DIA (mm) | CARTON SIZE (mm) | EA PER CARTON | GROSS WEIGHT(Kg) |
|---------|--------------|-------------|---------------------|-----------------|---------------|------------------|---------------|------------------|
| MDSJ | -T | 500 | --- | --- | 178 | 390*205*310 | 16,000 | --- |
| MDSJ | -W | 3,000 | --- | --- | 330 | 355*360*350 | 48,000 | 15.50 |

DISCLAIMER NOTICE

Rectron Inc reserves the right to make changes without notice to any product specification herein, to make corrections, modifications, enhancements or other changes. Rectron Inc or anyone on its behalf assumes no responsibility or liability for any errors or inaccuracies. Data sheet specifications and its information contained are intended to provide a product description only. "Typical" parameters which may be included on RECTRON data sheets and/ or specifications can and do vary in different applications and actual performance may vary over time. Rectron Inc does not assume any liability arising out of the application or use of any product or circuit.

Rectron products are not designed, intended or authorized for use in medical, life-saving implant or other applications intended for life-sustaining or other related applications where a failure or malfunction of component or circuitry may directly or indirectly cause injury or threaten a life without expressed written approval of Rectron Inc. Customers using or selling Rectron components for use in such applications do so at their own risk and shall agree to fully indemnify Rectron Inc and its subsidiaries harmless against all claims, damages and expenditures.