RECTRON SEMICONDUCTOR
TECHNICAL SPECIFICATION

# 2KMD40S

## SCHOTTKY BARRIER BRIDGE RECTIFIER

*VOLTAGE 40 Volts CURRENT 2.0 Ampere*

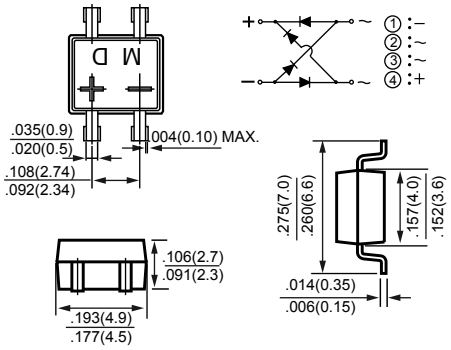
### FEATURES

* Low switching noise
* Low forward voltage drop
* High current capability
* High switching capability
* High surge capabitity
* High reliability

### MECHANICAL DATA

* Case: Molded plastic
* Epoxy: Device has UL flammability classification 94V-O
* Lead: MIL-STD-202E method 208C guaranteed
* Mounting position: Any
* Weight: 0.134 gram

MD-S




Dimensions in inches and (millimeters)

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.

**MAXIMUM RATINGS** (@ TA=25 °C unless otherwise noted)

| RATINGS | SYMBOL | 2KMD40S | UNITS |
|---|---|---|---|
| Maximum Recurrent Peak Reverse Voltage | $V_{RRM}$ | 40 | Volts |
| Maximum RMS Voltage | $V_{RMS}$ | 28 | Volts |
| Maximum DC Blocking Voltage | $V_{DC}$ | 40 | Volts |
| Maximum Average Forward Rectified Current at Derating Lead Temperature | $I_O$ | 2.0 | Amps |
| Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) | $I_{FSM}$ | 60 | Amps |
| Typical Thermal Resistance (Note 1) | $R_{\Theta JA}$ | 50 | °C/W |
| | $R_{\Theta JL}$ | 15 | |
| Typical Junction Capacitance (Note 3) | $C_J$ | 110 | pF |
| Operating Temperature Range | $T_J$ | 150 | °C |
| Storage Temperature Range | $T_{STG}$ | -55 to + 150 | °C |

**ELECTRICAL CHARACTERISTICS**(@TA=25 °C unless otherwise noted)

| CHARACTERISTICS | | SYMBOL | 2KMD40S | UNITS |
|---|---|---|---|---|
| Maximum Instantaneous Forward Voltage at 2.0 A DC | | $V_F$ | 0.5 | Volts |
| Maximum Average Reverse Current | @$T_A$ = 25°C | $I_R$ | 50 | uA |
| at Rated DC Blocking Voltage | @$T_A$ = 100°C | | 2 | mA |

NOTES : 1. Thermal Resistance : At 9.5mm lead lengths, PCB mounted.
2. Measured at 1 MHz and applied reverse voltage of 4.0 volts.
3. "Fully ROHS compliant", "100% Sn plating (Pb-free)".

2012-02
REV:O

# RATING AND CHARACTERISTICS CURVES ( 2KMD40S )

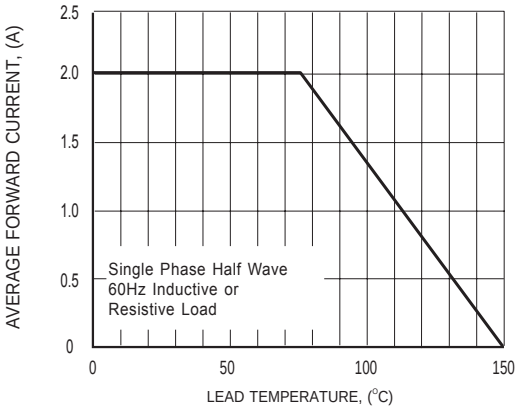



FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE

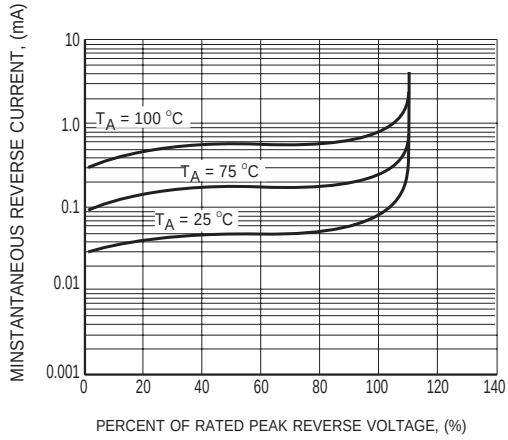



FIG.2 TYPICAL REVERSE CHARACTERISTICS

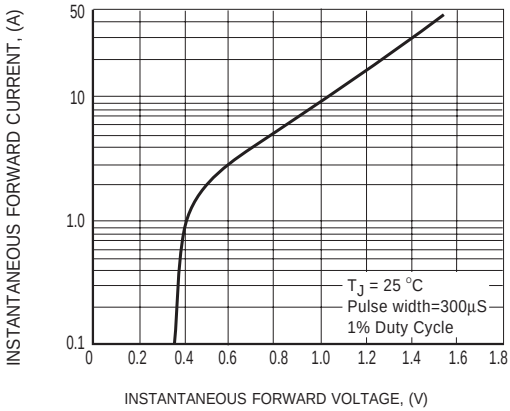



FIG.3 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

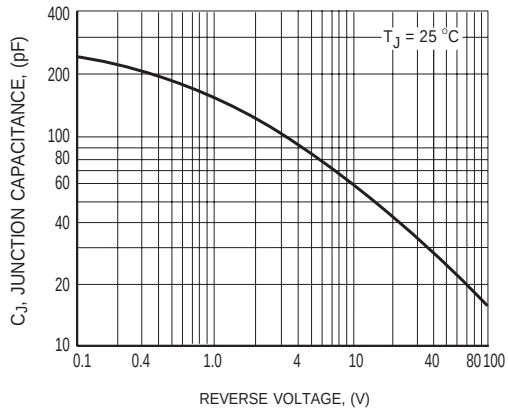



FIG.4 TYPICAL JUNCTION CAPACITANCE

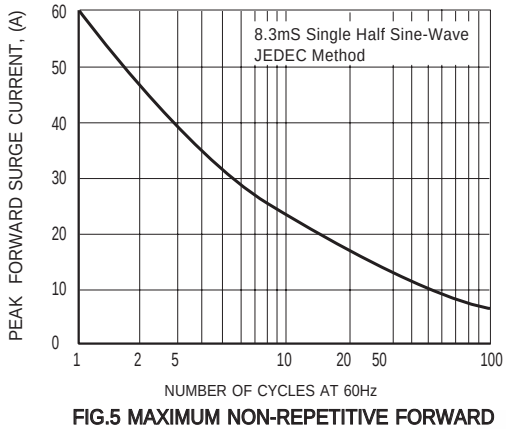
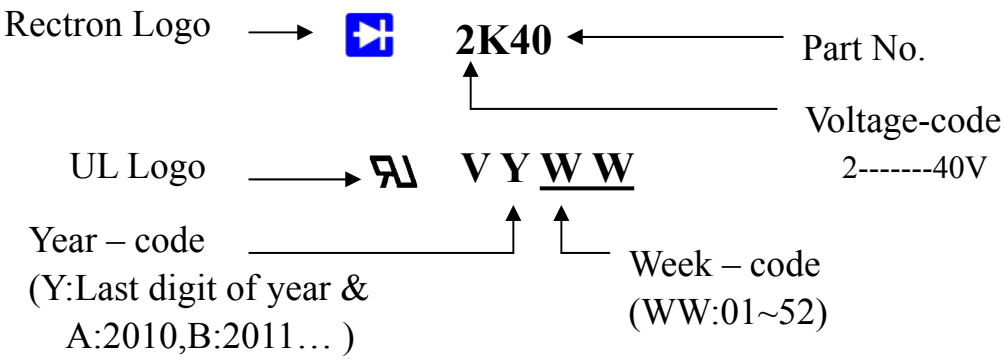



FIG.5 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

## Marking Description



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