

### HIGH EFFICIENCY RECTIFIER

VOLTAGE RANGE: 100 --- 600 V  
CURRENT: 1.0---1.2 A

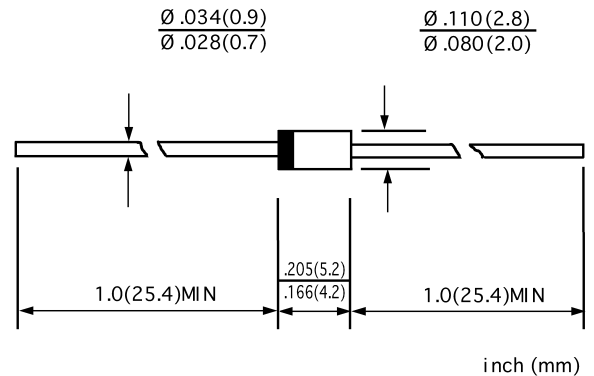
#### FEATURES

- ◇ Low cost
- ◇ Low leakage
- ◇ Low forward voltage drop
- ◇ High current capability
- ◇ Easily cleaned with Alcohol,Isopropanol and similar solvents
- ◇ The plastic material carries U/L recognition 94V-0

#### MECHANICAL DATA

- ◇ Case:JEDEC DO--41,molded plastic
- ◇ Terminals: Axial lead ,solderable per MIL- STD-202,Method 208
- ◇ Polarity: Color band denotes cathode
- ◇ Weight: 0.012 ounces,0.34 grams
- ◇ Mounting position: Any

#### DO - 41



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase,half wave,60 Hz,resistive or inductive load. For capacitive load,derate by 20%.

|                                                                                                                   |                 | EU2YX            | EU2Z | EU2 | EU2A | UNITS              |
|-------------------------------------------------------------------------------------------------------------------|-----------------|------------------|------|-----|------|--------------------|
| Maximum recurrent peak reverse voltage                                                                            | $V_{RRM}$       | 100              | 200  | 400 | 600  | V                  |
| Maximum RMS voltage                                                                                               | $V_{RMS}$       | 70               | 140  | 210 | 420  | V                  |
| Maximum DC blocking voltage                                                                                       | $V_{DC}$        | 100              | 200  | 400 | 600  | V                  |
| Maximum average forward rectified current<br>9.5mm lead length, @ $T_A=75^\circ\text{C}$                          | $I_{F(AV)}$     | 1.2              | 1.0  |     |      | A                  |
| Peak forward surge current<br>8.3ms single half-sine-wave<br>superimposed on rated load @ $T_J=125^\circ\text{C}$ | $I_{FSM}$       | 25.0             | 15.0 |     |      | A                  |
| Maximum instantaneous forward voltage<br>@ $I_F=I_{F(AV)}$                                                        | $V_F$           | 0.90             | 1.40 |     |      | V                  |
| Maximum reverse current @ $T_A=25^\circ\text{C}$<br>at rated DC blocking voltage @ $T_A=100^\circ\text{C}$        | $I_R$           | 10.0<br>300.0    |      |     |      | $\mu\text{A}$      |
| Maximum reverse recovery time (Note1)                                                                             | $t_{rr}$        | 50               | 100  |     |      | ns                 |
| Typical junction capacitance (Note2)                                                                              | $C_J$           | 20               |      |     | 15   | pF                 |
| Typical thermal resistance (Note3)                                                                                | $R_{\theta JA}$ | 60               |      |     |      | $^\circ\text{C/W}$ |
| Operating junction temperature range                                                                              | $T_J$           | - 55 ----- + 150 |      |     |      | $^\circ\text{C}$   |
| Storage temperature range                                                                                         | $T_{STG}$       | - 55 ----- + 150 |      |     |      | $^\circ\text{C}$   |

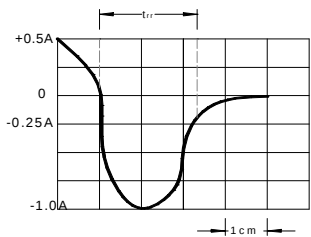
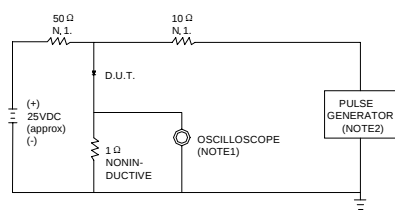
NOTE: 1. Measured with  $I_F=0.5\text{A}$ ,  $I_R=1\text{A}$ ,  $t_{rr}=0.25\text{A}$

2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

3. Thermal resistance junction to ambient.

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FIG.1 – TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



NOTES:1.RISE TIME = 7ns MAX.INPUT IMPEDANCE =1MΩ . 22pF.  
2.RISE TIME =10ns MAX.SOURCE IMPEDANCE=50 Ω.

SET TIME BASE FOR 10/20 ns/cm

FIG.2 – TYPICAL FORWARD CHARACTERISTIC

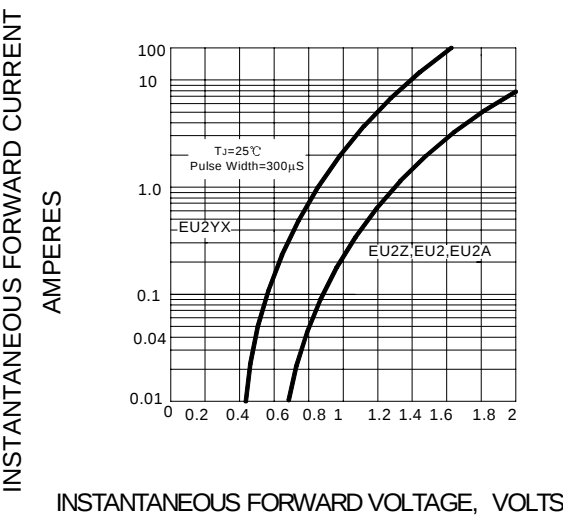


FIG.3 – FORWARD DERATING CURVE

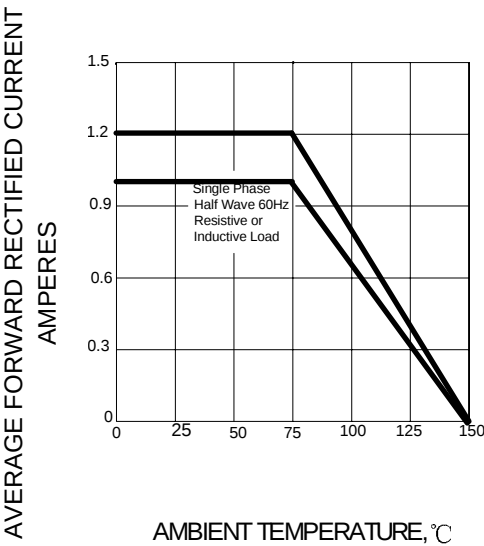


FIG.4 – PEAK FORWARD SURGE CURRENT

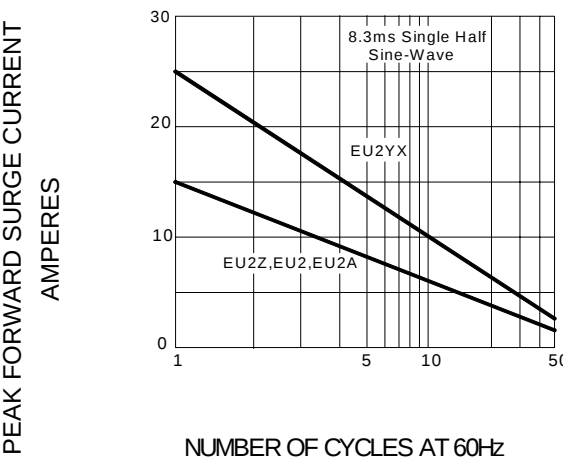


FIG.5 – TYPICAL JUNCTION CAPACITANCE

