

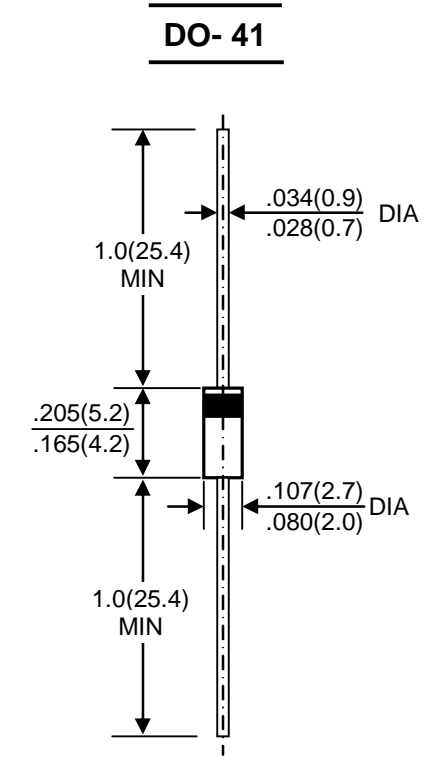
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| HIGH EFFICIENCY (ULTRA FAST) RECTIFIERS | REVERSE VOLTAGE - 50 to 1000 Volts FORWARD CURRENT - 1.0 Ampere |
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FEATURES

- Low cost
- Diffused junction
- Ultra fast switching for high efficiency
- Low reverse leakage current
- Low forward voltage drop
- High current capability
- The plastic material carries UL recognition 94V-0

MECHANICAL DATA

- Case: JEDEC DO-41 molded plastic
- Polarity: Color band denotes cathode
- Weight: 0.012 ounces , 0.34 grams
- Mounting position: Any



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.
 Single phase, half wave ,60Hz, resistive or inductive load.
 For capacitive load, derate current by 20%

| CHARACTERISTICS | SYMBOL | HER101 | HER102 | HER103 | HER104 | HER105 | HER106 | HER107 | HER108 | UNIT | |
|--|-------------------|-------------|--------|--------|--------|--------|--------|--------|--------|------|----|
| | | UF4001 | UF4002 | UF4003 | UF4004 | UF4005 | UF4006 | UF4007 | UF4008 | | |
| Maximum Recurrent Peak Reverse Voltage | V _{RRM} | 50 | 100 | 200 | 300 | 400 | 600 | 800 | 1000 | V | |
| Maximum RMS Voltage | V _{RMS} | 35 | 70 | 140 | 210 | 280 | 420 | 560 | 700 | V | |
| Maximum DC Blocking Voltage | V _{DC} | 50 | 100 | 200 | 300 | 400 | 600 | 800 | 1000 | V | |
| Maximum Average Forward Rectified Current @T _A =55 °C | I _(AV) | 1.0 | | | | | | | | A | |
| Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load(JEDEC Method) | I _{FSM} | 30 | | | | | | | | A | |
| Peak Forward Voltage at 1.0A DC | V _F | 1.0 | | | 1.3 | | 1.7 | | | V | |
| Maximum DC Reverse Current @T _J =25°C at Rated DC Blocking Voltage @T _J =100°C | I _R | 5.0 | | | | | | | | μA | |
| | | 100 | | | | | | | | | |
| Maximum Reverse Recovery Time(Note 1) | T _{RR} | 50 | | | | | 75 | | | | nS |
| Typical Junction Capacitance (Note2) | C _J | 20 | | | | | 10 | | | | pF |
| Typical Thermal Resistance (Note3) | R _{θJA} | 25 | | | | | | | | °C/W | |
| Operating Temperature Range | T _J | -55 to +150 | | | | | | | | °C | |
| Storage Temperature Range | T _{STG} | -55 to +150 | | | | | | | | °C | |

NOTES: 1.Measured with I_F=0.5A,I_R=1A,I_{RR}=0.25A.
 2.Measured at 1.0 MHz and applied reverse voltage of 4.0V DC
 3.Thermal resistance junction to ambient.

FIG. 1 – FORWARD CURRENT DERATING CURVE

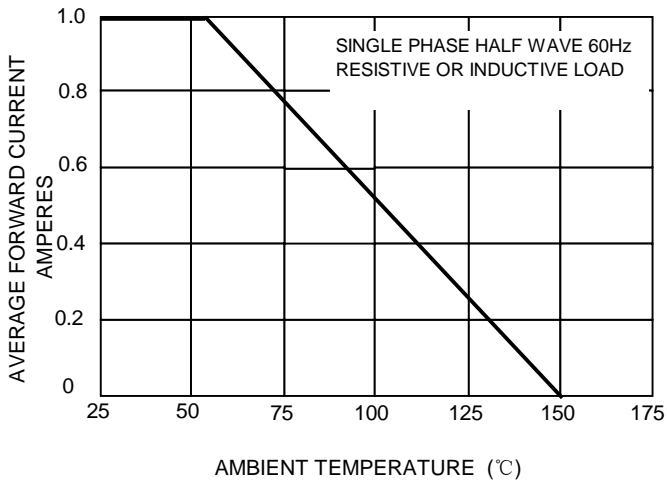


FIG. 2 – MAXIMUM NON-REPETITIVE SURGE CURRENT

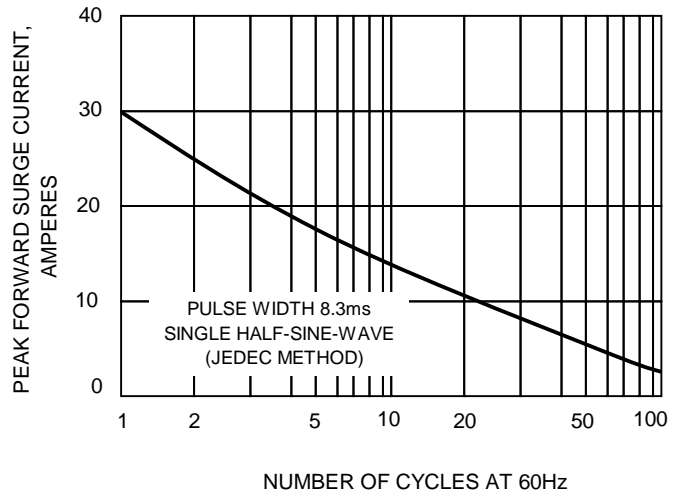


FIG.3 – TYPICAL JUNCTION CAPACITANCE

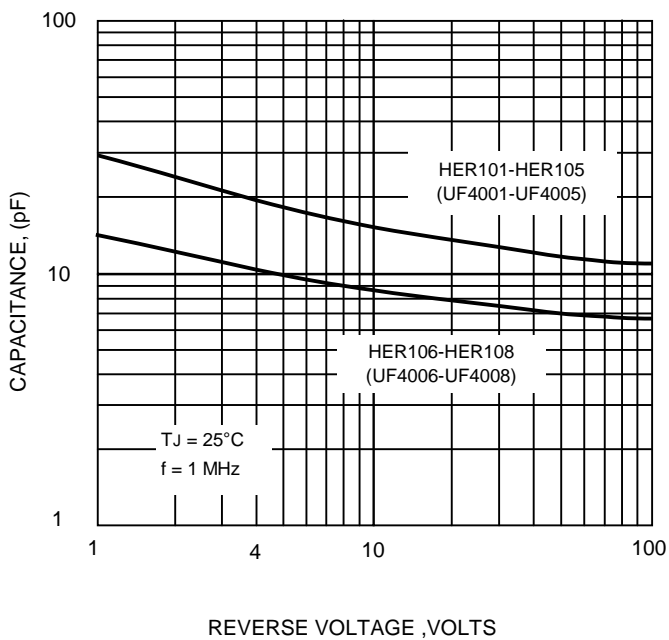


FIG.4-TYPICAL FORWARD CHARACTERISTICS

