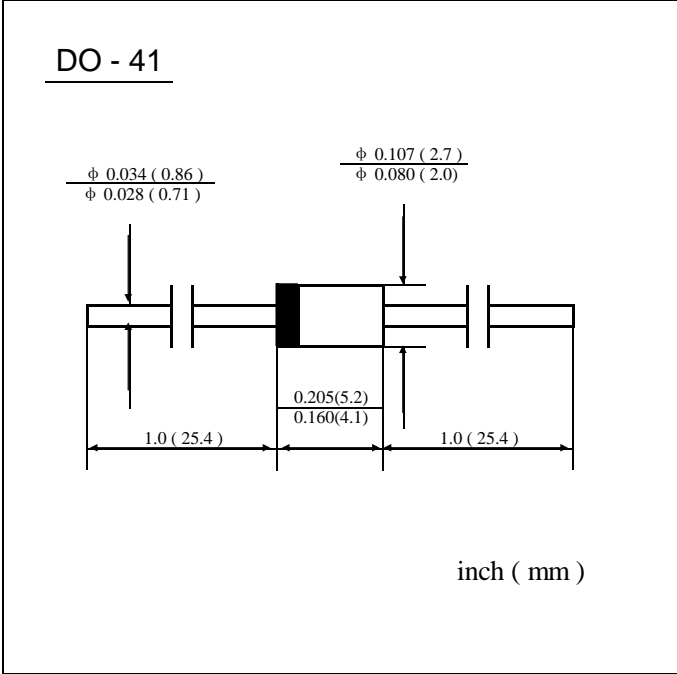


**1.0AMP PLASTIC SILICON RECTIFIERS**

**VOLTAGE RANGE: 50 to 1000 VOLTS**



- FEATURES**
- . Low cost
  - . Diffused junction
  - . Low Leakage
  - . Low forward voltage drop
  - . High current capability
  - . Easily cleaned with Freon. Alcohol. Isopropanol and similar solvents
  - . The plastic material carries U/L recognition 94V-0
- MECHANICAL DATA**
- . Case: JEDEC DO - 41. molded plastic
  - . Terminals: Axial leads. Solderable per MIL - STD - 750. Method 2026
  - . Polarity: Color band denotes cathode
  - . Weight: 0.012 ounce. 0.34 grams
  - . Mounting position: Any

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

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

	SYMBOL	UF4001	UF4002	UF4003	UF4004	UF4005	UF4006	UF4007	UNITS
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current 9.5mm Lead Length. T <sub>A</sub> = 55°C	I <sub>(AV)</sub>	1.0							A
Peak Forward Surge Current 8.3ms Single half-sine-wave superimposed on rated load	I <sub>FSM</sub>	30							A
Maximum Forward Voltage at 1.0A DC	V <sub>F</sub>	1.0				1.7			V
Maximum Reverse Current T <sub>A</sub> = 25°C at Rated DC Blocking Voltage T <sub>A</sub> = 100°C	I <sub>R</sub>	10.0 50							μ A
Maximum Reverse Recovery Time (Note 1)	t <sub>rr</sub>	50				75			ns
Typical Junction Capacitance (Note 2)	C <sub>j</sub>	17							pF
Typical Thermal Resistance (Note 3)	R <sub>QJA</sub> R <sub>QJL</sub>	60 15							°C/W
Operating Junction Temperature Range	T <sub>j</sub>	— 55 to 150							°C
Storage Temperature Range	T <sub>STG</sub>	— 55 to 150							°C

NOTE: 1.Measured with I<sub>F</sub>=0.5A,I<sub>R</sub>=1A,I<sub>rr</sub>=0.25A.  
 2.Measured at 1.0MHz and applied reverse voltage of 4.0V DC.  
 3.Thermal Resistance Junction to Ambient.

FIG. 1 -- TYPICAL FORWARD CHARACTERISTIC

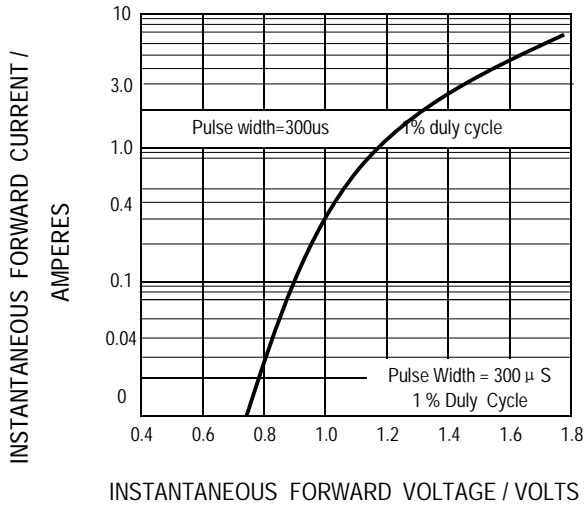


FIG. 2 -- TYPICAL JUNCTION CAPACITANCE

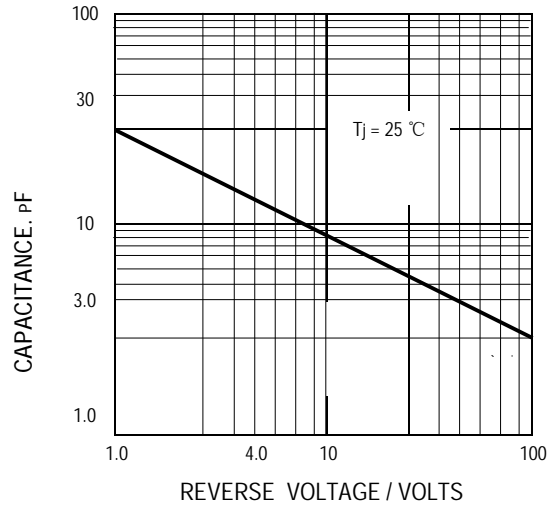


FIG. 3 -- FORWARD CURRENT DERATING CURVE

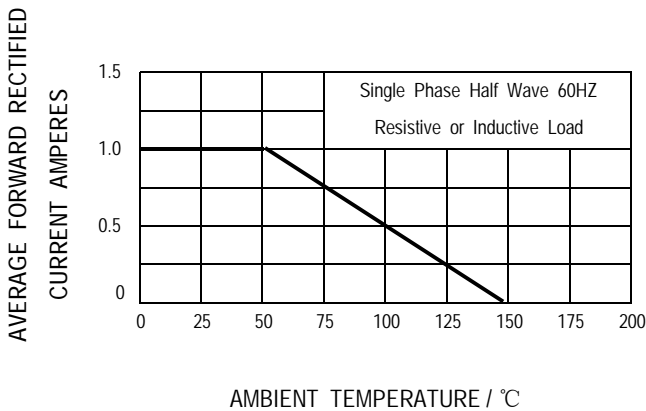


FIG. 4 -- PEAK FORWARD SURGE CURRENT

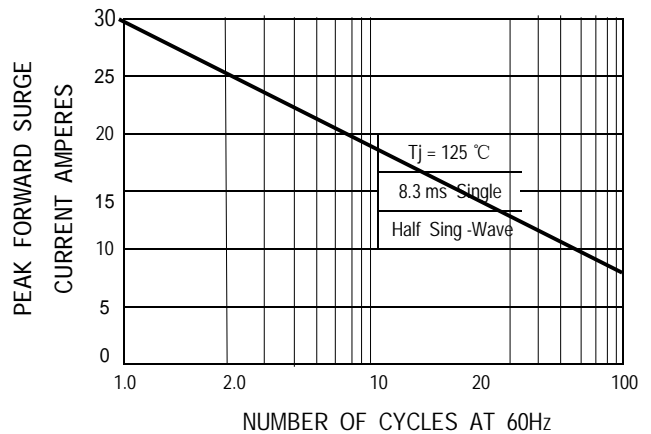
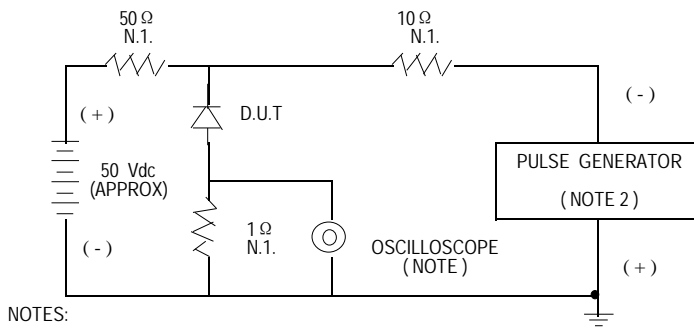
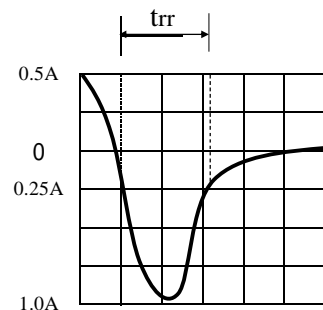


FIG. 5 -- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



NOTES:

1. RISE TIME = 7n SEC MAX. INPUT IMPEDANCE = 1 MEGOHM. 22pF
2. RISE TIME = 10n SEC MAX. SOURCE IMPEDANCE = 50 OHM.



SET TIME BASE FOR 15 ns / cm