



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-27 molded plastic
Polarity	: Colour band denotes cathode
Weight	: 0.04ounces, 1.1grams
Mounting Position	: Any
Reverse Voltage	: 400 Volts
Forward Current	: 3 Amperes

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	Values	Unit
Max. Recurrent Peak Reverse Voltage	V_{RRM}	400	V
Max. RMS Voltage	V_{RMS}	280	
Max. DC Blocking Voltage	V_{DC}	400	
Max. Average Forward Rectified Current @ $T_A = 25^\circ C$	$I_{(AV)}$	3	A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	150	
Peak Forward Voltage at 3A DC	V_F	1.3	V
Max. DC Reverse Current at $T_J = 25^\circ C$ Rated DC Blocking Voltage at $T_J = 100^\circ C$	I_R	5 100	μA
Max. Reverse Recovery Time (Note 1)	T_{RR}	50	nS
Typical Junction Capacitance (Note 2)	C_J	50	pF
Typical Thermal Resistance (Note 3)	$R_{\theta JA}$	20	$^\circ C/W$
Operating Temperature Range	T_J	-55 to +150	$^\circ C$
Storage Temperature Range	T_{STG}		

Notes:

1. Measured with $I_F = 0.5A$, $I_R = 1A$, $I_{RR} = 0.25A$.
2. Measured at 1MHz and applied reverse voltage of 4.0V DC
3. Thermal resistance junction to ambient
4. The typical data above is for reference only

Ratings and Characteristic Curves

FIG. 1 – FORWARD CURRENT DERATING CURVE

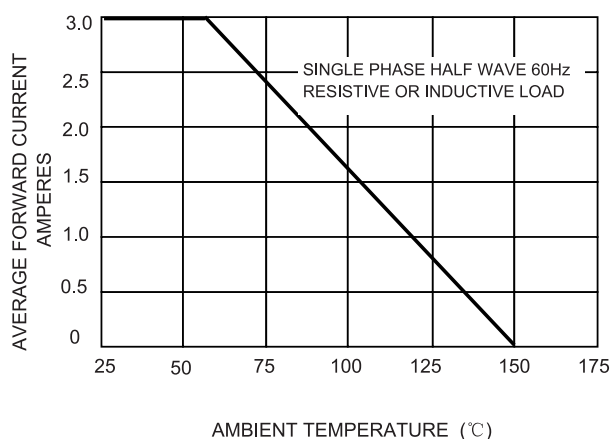


FIG. 2 – MAXIMUM NON-REPETITIVE SURGE CURRENT

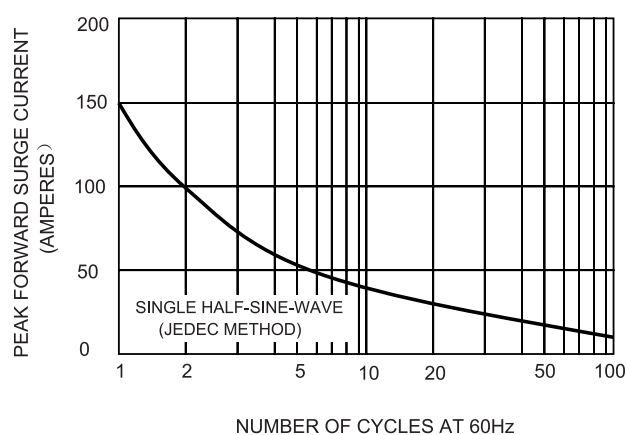


FIG. 3 – TYPICAL JUNCTION CAPACITANCE

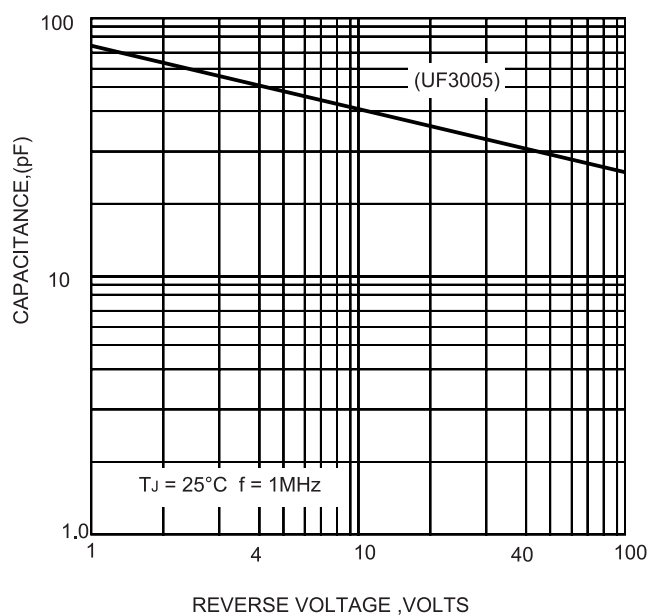
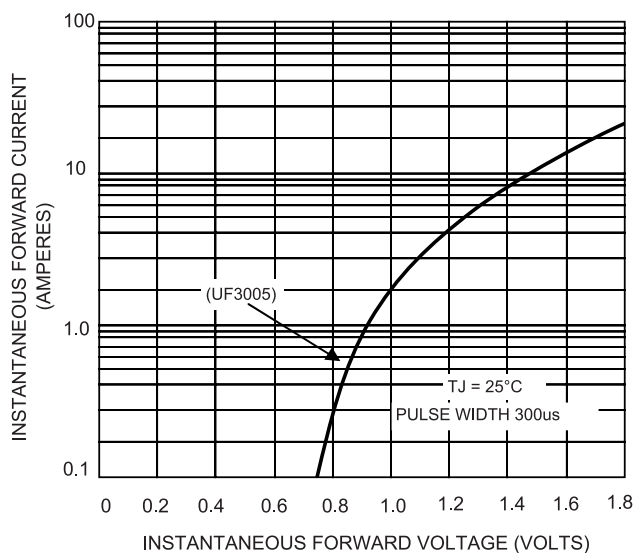
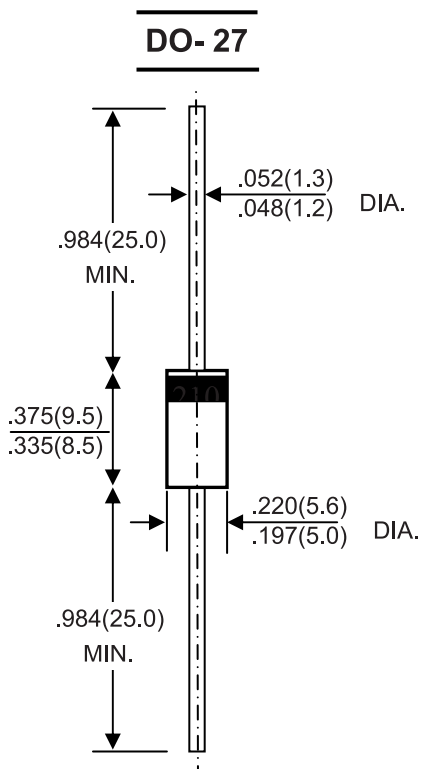


FIG.4-TYPICAL FORWARD CHARACTERISTICS



Dimensions:



Dimensions : Inches (Millimetres)

Part Number Table

Description	Part Number
High Efficiency (Ultra Fast) Rectifier, 3A 400V, DO-27	UF3005

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