



**TAYCHIPST**

SURFACE MOUNT HIGH EFFICIENCY RECTIFIERS

UF1A THRU UF1M

50V-1000V 1.0A

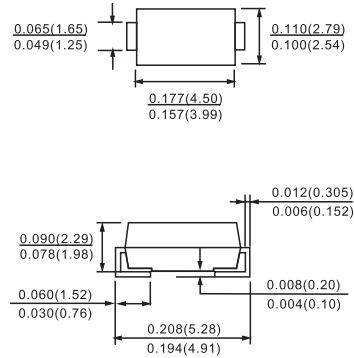
**FEATURES**

- For surface mounted applications
- Low profile package
- Built-in strain relief
- Easy pick and place
- Ultrafast recovery times for high efficiency
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- Glass passivated junction
- High temperature soldering  
260°C/10 seconds at terminals

**MECHANICAL DATA**

- Case: JEDEC DO-214Ac molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Indicated by cathode band
- Standard Packaging: 12mm tape (EIA-481)

DO-214AC(SMA)



Dimensions in inches and (millimeters)

**Maximum Ratings and Electrical Characteristics**

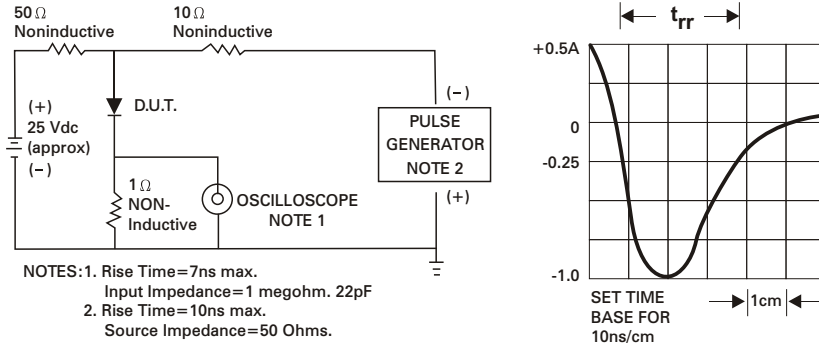
Rating at 25 °C ambient temperature unless otherwise specified.  
Single phase, half wave, 60 Hz, resistive or inductive load.  
For capacitive load, derate current by 20%

Type Number	Symbol	UF1A	UF1B	UF1D	UF1G	UF1J	UF1K	UF1M	Units	
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V	
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	700	V	
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	V	
Maximum Average Forward Rectified Current .375 (9.5mm) Lead Length @ $T_A = 55^\circ C$	$I_{(AV)}$	1.0							A	
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method )	$I_{FSM}$	30							A	
Maximum Instantaneous Forward Voltage @ 1.0A	$V_F$	1.0			1.7			V		
Maximum DC Reverse Current @ $T_A=25^\circ C$ at Rated DC Blocking Voltage @ $T_A=125^\circ C$	$I_R$	5.0				150				uA
Maximum Reverse Recovery Time ( Note 1 )	$T_{rr}$	50			75			nS		
Typical Junction Capacitance ( Note 2 )	$C_j$	17							pF	
Typical Thermal Resistance (Note 3)	$R_{\theta JA}$	60								$^\circ C/W$
	$R_{\theta JL}$	15								
Operating/Storage Temperature Range	$T_J, T_{STG}$	-55 to + 150							$^\circ C$	

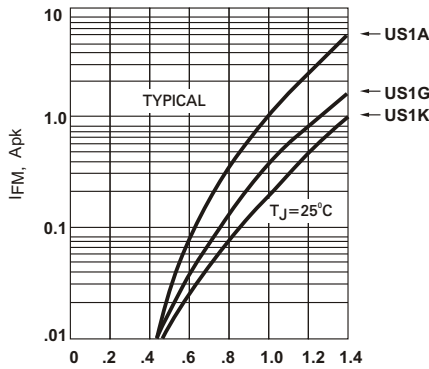
Notes: 1. Reverse Recovery Test Conditions:  $I_F=0.5A, I_R=1.0A, I_{RR}=0.25A$   
 2. Measured at 1 MHz and Applied Reverse Voltage of 4.0 V D.C.  
 3. Thermal Resistance from junction to ambient and from Junction to Lead length .375" (9.5mm), Mounted on 0.2" x 0.2" (5mm x 5mm) Cu pads.



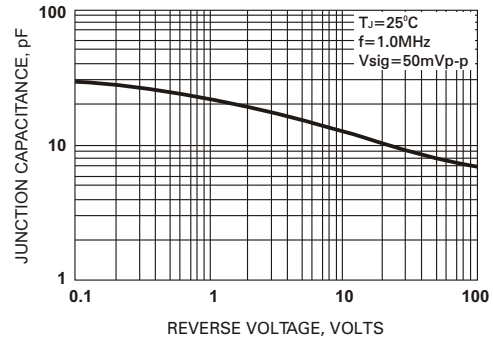
**Fig. 1 - REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM**



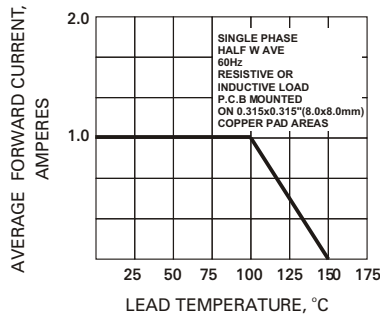
**Fig. 2 - FORWARD CHARACTERISTICS**



**Fig. 3 - TYPICAL JUNCTION CAPACITANCE**



**Fig. 4 - FORWARD CURRENT DERATING CURVE**



**Fig. 5 - PEAK FORWARD SURGE CURRENT**

