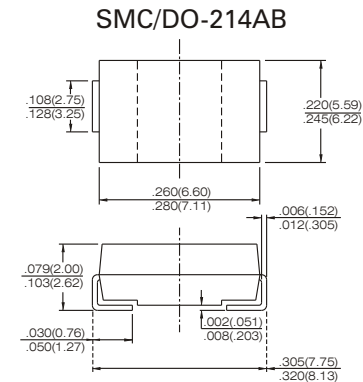


US3AC thru US3MC

SURFACE MOUNT REVERSE VOLTAGE 50 TO 1000 VOLTS

ULTRA FAST RECTIFIERS FORWARD CURRENT - 3.0 AMPERES



Dimensions in inches and (millimeters)

FEATURES

- For surface mount applications
- Low profile package
- Built-in strain relief
- Easy pick and place
- Ultra fast recovery times for high efficiency
- Plastic package has Underwriters Laboratory Flammability classification 94V-0
- Glass passivated junction
- High temperature soldering : 260°C/10seconds at terminals
- Pb free product are available : 99% Sn above can meet RoHS Environment substance directive request

MECHANICAL DATA

Case : JEDEC DO-214AB molded plastic
 Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
 Polarity : Indicated by cathode band
 Standard packaging : 16mm tape (EIA-481)
 Weight : 0.007 ounce, 0.21grams

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, derate current by 20%

	SYMBOL	US3AC	US3BC	US3DC	US3FC	US3GC	US3JC	US3KC	US3MC	UNITS	
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	300	400	600	800	1000	Volts	
Maximum RMS Voltage	V_{RMS}	35	70	140	210	280	420	560	700	Volts	
Maximum DC Blocking Voltage	V_{DC}	50	100	200	300	400	600	800	1000	Volts	
Maximum Average Forward Rectified Current @ $T_L = 100^\circ\text{C}$	$I_{(AV)}$	3.0								Amps	
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method) $T_A = 55^\circ\text{C}$	I_{FSM}	100								Amps	
Maximum Instantaneous Forward Voltage at 3.0A DC	V_F	1.0			1.3		1.7			Volts	
Maximum DC Reverse Current @ $T_A = 25^\circ\text{C}$ at Rated DC Blocking Voltage @ $T_A = 125^\circ\text{C}$	I_R	10 100								μA	
Typical Junction Capacitance (NOTE 2)	C_J	50					75				pF
Maximum Reverse Recovery Time (NOTE 1) $T_J = 25^\circ\text{C}$	T_{RR}	50					80				nS
Maximum Thermal Resistance (NOTE 3)	T_J	-55 to +150								$^\circ\text{C}$	
Operating and Storage Temperature Range	T_{STG}	-55 to +150								$^\circ\text{C}$	

NOTES :

1. Reverse Recovery Test Conditions $I_F = 0.5\text{A}$, $I_R = 1\text{A}$, $I_{RR} = 0.25\text{A}$
2. Measured at 1 MHz and applied reverse voltage of 4.0VDC
3. Thermal Resistance Junction to lead

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SURFACE MOUNT REVERSE VOLTAGE 50 TO 1000 VOLTS

RATINGS AND CHARACTERISTIC CURVES US3AC THRU US3MC

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

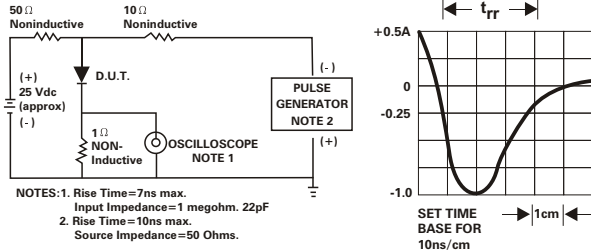


Fig. 2 - MAXIMUM AVERAGE FORWARD CURRENT RATING

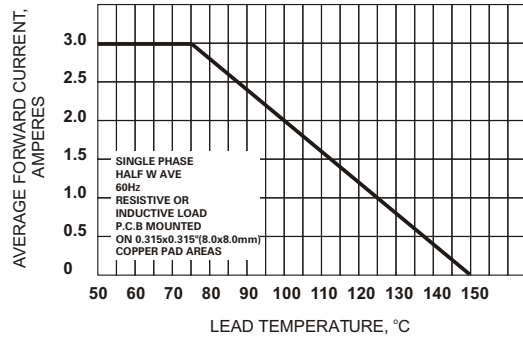


Fig. 3 - TYPICAL REVERSE CHARACTERISTICS

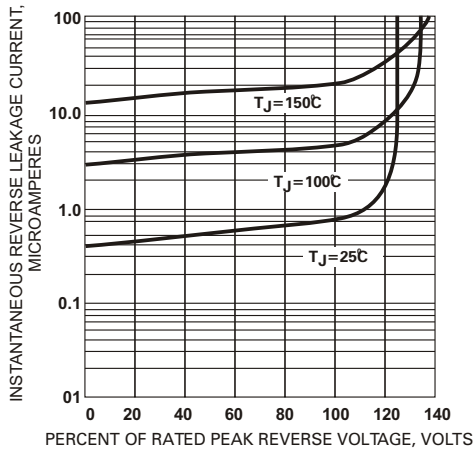


Fig. 4 - TYPICAL FORWARD CHARACTERISTICS

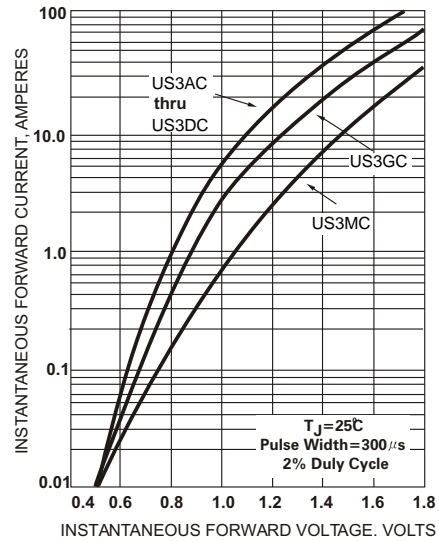


Fig. 5 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

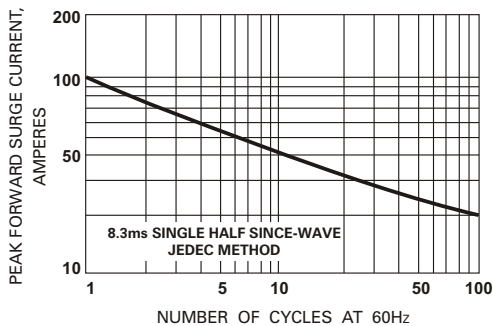


Fig. 6 - TYPICAL JUNCTION CAPACITANCE

