

FAST RECOVERY RECTIFIERS

FEATURES

For surface mount applications

Low profile package

Built-in strain relief

Easy pick and place

Ultrafast recovery times for high efficiency

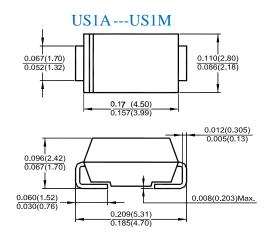
Plastic package has Underwriters Laboratories

Flammability Classification 94V-0

MECHANICAL DATA

SMA (DO-214AC) molded plastic

Polarity: Color band denotes cathode end



Dimensions in inches and (millimeters)
DO-214AC (SMA)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings 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%.

Parameter	Symbols	US1A	US1B	US1D	US1G	US1J	US1K	US1M	Unit
Maximum Repetitive 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 $Current \ at \ T_L = 100 \ ^oC$	I _F (AV)				1				A
Peak Forward Surge Current 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC Method)	I _{FSM}				30				A
Maximum Forward Voltage at 1 A	VF		1		1.4		1.7		V
Maximum DC Reverse Current $T_A = 25$ °C at Rated DC Blocking Voltage $T_A = 100$ °C	I _R	5 100							μА
Typical Junction Capacitance at 4 V, 1 MHz	СЈ	17							pF
Maximum Reverse Recovery Time at $I_F = 0.5$ A, $I_R = 1$ A, $I_{TT} = 0.25$ A	t _{rr}		5	50			75		ns
Typical Thermal Resistance 1)	R JA	50							°C/W
Operating and Storage Temperature Range	T _J ,T _S	- 55 to + 150							°C

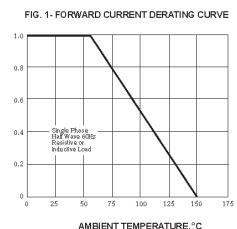
¹⁾Mounted on P.C.B. with 0.2 X 0.2" (5 X 5 mm) copper pad areas.





US1A---US1M Typical Characteristics





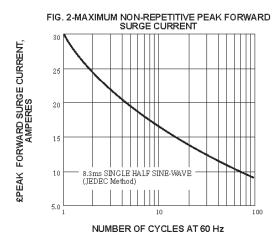


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

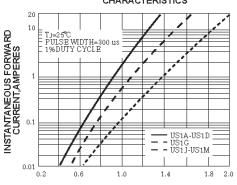
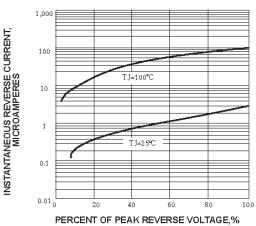
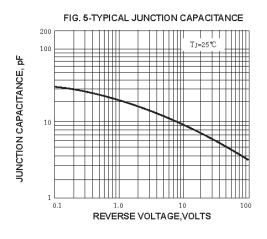
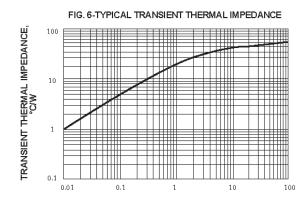


FIG. 4-TYPICAL REVERSE CHARACTERISTICS



INSTANTANEOUS FORWARD VOLEAGE, VOLTS





t,PULSE DURATION,sec.