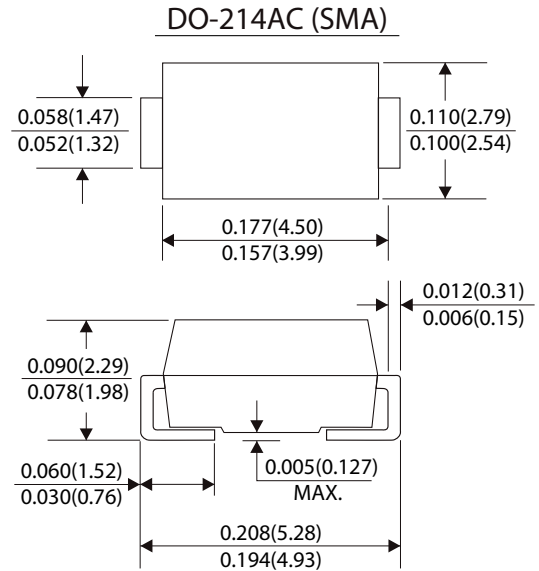


Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Low forward voltage drop
- High current capability
- High reliability
- Low power loss, high efficiency
- High surge current capability
- High speed switching
- Low leakage

Mechanical Data

- Case : JEDEC DO-214AC(SMA)molded plastic body
- Lead : Solder Plated, solderable per MIL-STD-750, method 2026
- Polarity : Color band denotes cathode end
- Weight: 0.002 ounce, 0.064 gram



Dimensions in inches and (millimeters)

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 by 20%)

	Symbols	US1A	US1B	US1D	US1E	US1G	US1J	US1K	US1M	Units
Maximum recurrent 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 0.375"(9.5mm) lead length T _T =75°C	I(AV)	1.0								Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	30.0								Amps
Maximum instantaneous forward voltage at 1.0A	V _F	1.0		1.3		1.7				Volts
Maximum DC Reverse Current at rated DC blocking voltage T _A = 25°C	I _R	5.0								μ A
Maximum full load reverse current full cycle average. 0.375"(9.5mm) lead length at T _A = 100°C		100								
Maximum reverse recovery time (Note 1)	T _{rr}	50				75				ns
Typical junction capacitance (Note 2)	C _J	20				15				pF
Operating Junction and Storage temperature Range	T _J T _{STG}	-55 to +150								°C

Notes:

- (1) Test conditions: I_F=0.5A, I_R=1.0A, I_{rr}=0.25A.
- (2) Measured at 1MHz and applied reverse voltage of 4.0 Volts.

RATINGS AND CHARACTERISTIC CURVES US1A THRU US1M

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

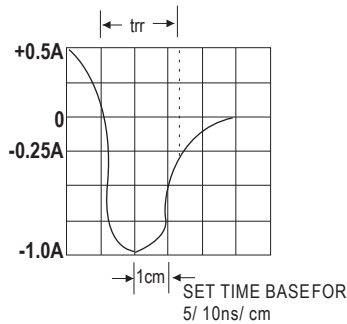
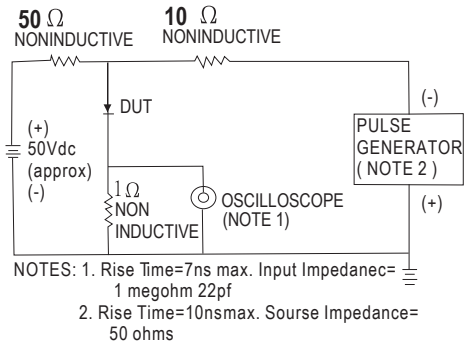


FIG.2- MAXIMUM AVERAGE FORWARD CURRENT DERATING

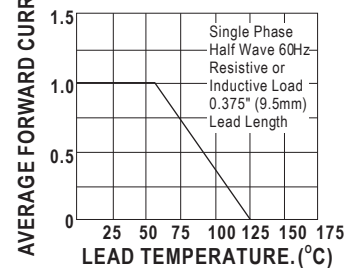


FIG.3- TYPICAL REVERSE CHARACTERISTICS

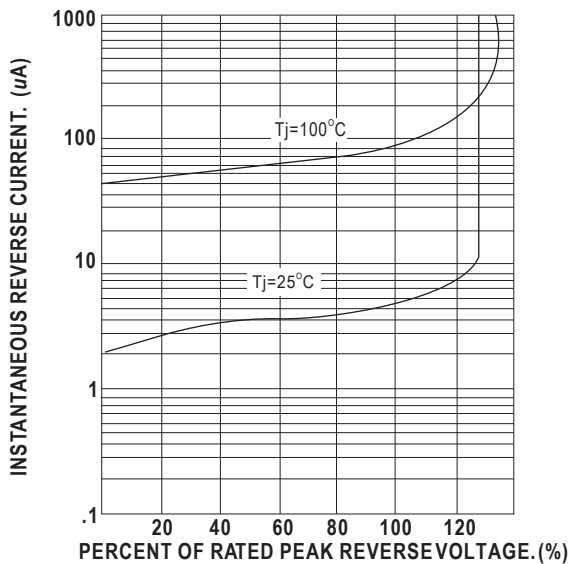


FIG.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

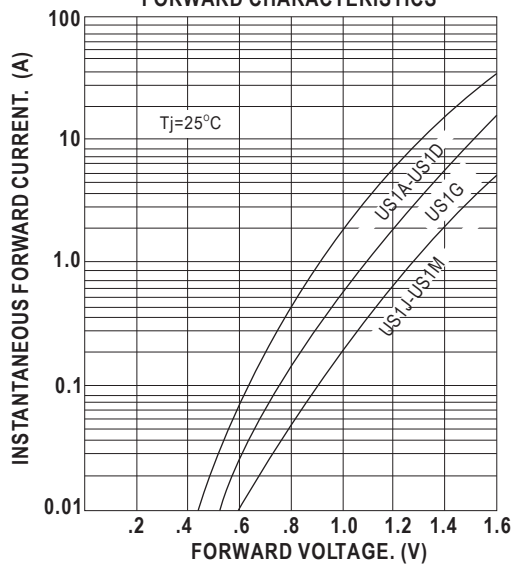


FIG.5- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

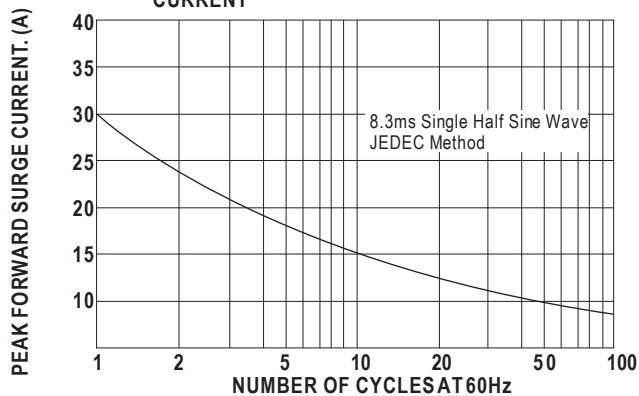


FIG.6- TYPICAL JUNCTION CAPACITANCE

