

## 1.0Amp Ultra Fast Recovery Surface Mounted Rectifiers

### Features

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ Idea for printed circuit board
- ◆ Glass passivated Junction chip
- ◆ Low reverse leakage
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed 250°C/10 seconds at terminals

### Mechanical Data

**Case :** Molded plastic body

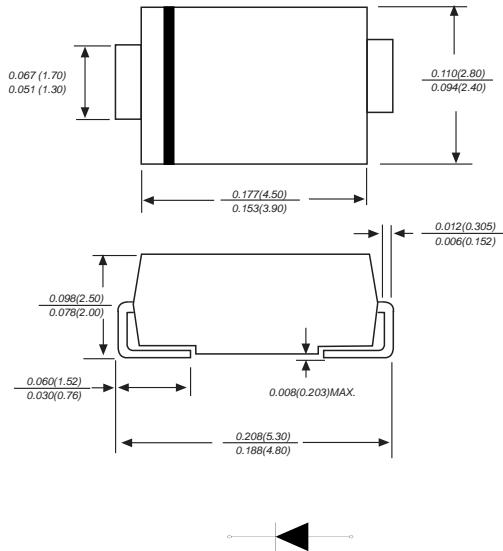
**Terminals :** Solder plated, solderable per MIL-STD-750, Method 2026

**Polarity :** Polarity symbol marking on body

**Mounting Position :** Any

**Weight :** 0.0023 ounce, 0.07 grams

**DO-214AC/SMA**



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 current derate by 20%.

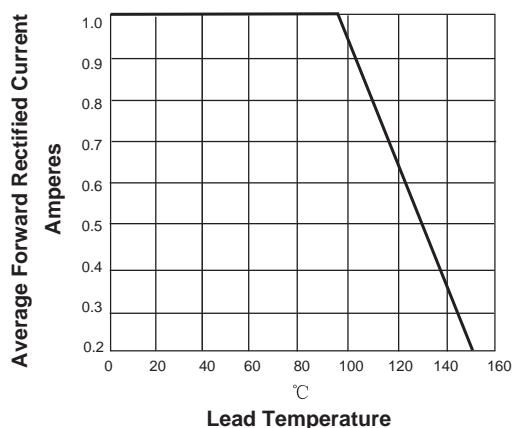
Parameter	SYMBOLS	US1A	US1B	US1D	US1G	US1J	US1K	US1M	UNITS			
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	V			
Maximum RMS voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	V			
Maximum DC blocking voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	V			
Maximum average forward rectified current at T <sub>L</sub> =100°C	I <sub>(AV)</sub>	1.0							A			
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	30.0							A			
Maximum instantaneous forward voltage at 1.0A	V <sub>F</sub>	1.0		1.4	1.7				V			
Maximum DC reverse current T <sub>A</sub> =25°C at rated DC blocking voltage T <sub>A</sub> =125°C	I <sub>R</sub>	5.0 500							uA			
Maximum reverse recovery time(Note 1)	T <sub>rr</sub>	50			75				ns			
Typical junction capacitance (Note2)	C <sub>J</sub>	20.0							pF			
Typical thermal resistance	R <sub>QJA</sub>	80.0							°C/W			
Operating junction and storage temperature range	T <sub>J,T<sub>STG</sub></sub>	-55 to +150							°C			

**Note:** 1.Reverse recovery time test condition: IF=0.5A IR=1.0A Irr=0.25A

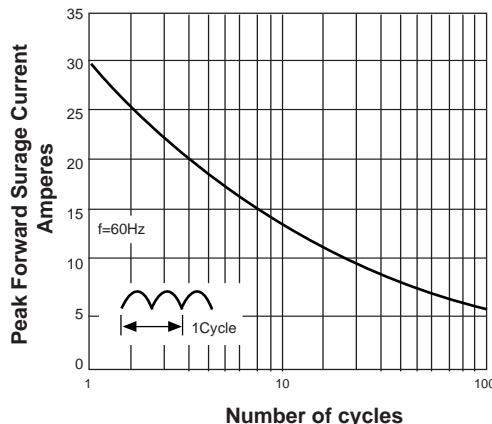
2.Measured at 1MHz and applied reverse voltage of 4.0V D.C.

## Ratings And Characteristic Curves

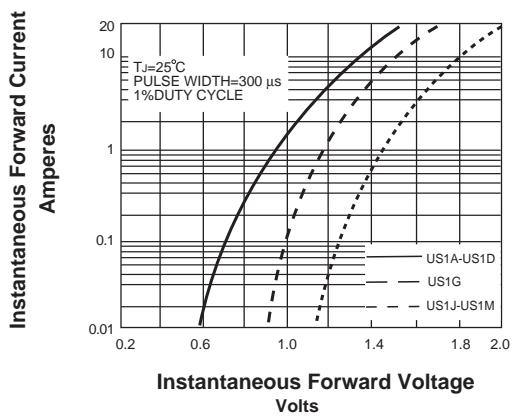
**FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT**



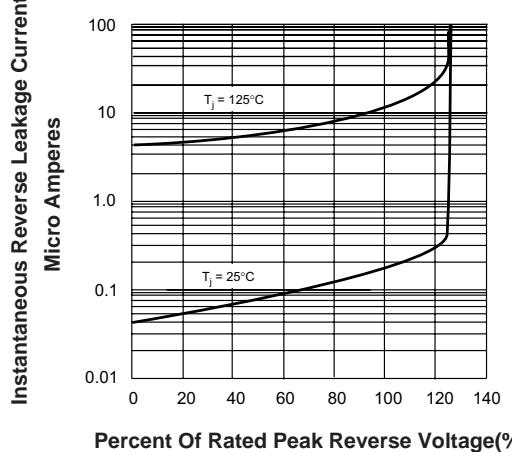
**FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PERLEG**



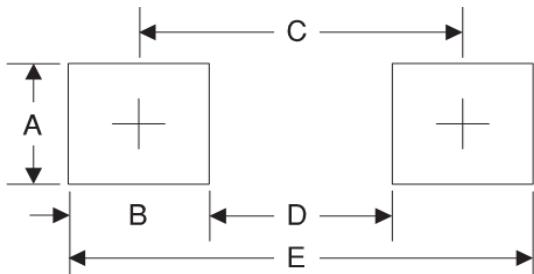
**FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS**



**FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS**



## Suggested Pad Layout



Symbol	Unit (mm)	Unit (inch)
A	1.68	0.066
B	1.52	0.060
C	3.90	0.154
D	2.41	0.095
E	5.45	0.215

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