

US1A~US1M

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
260°C/10 seconds at terminals

Mechanical Data

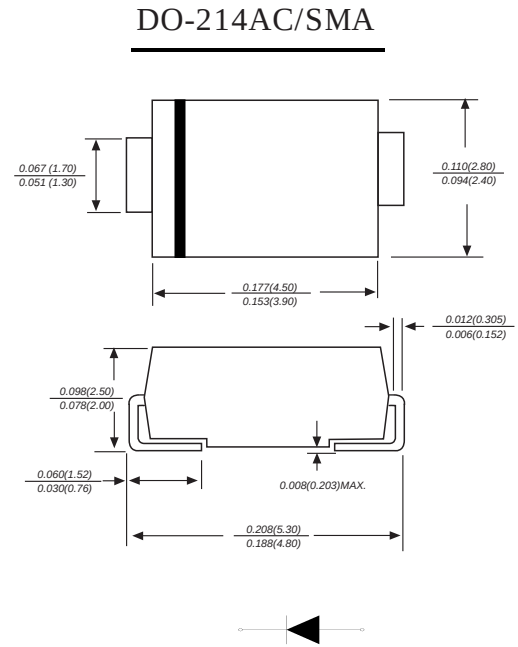
Case : Molded plastic body

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



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 _{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°C	I _(AV)	1.0							A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I _{FSM}	30.0							A
Maximum instantaneous forward voltage at 1.0A	V _F	1.0			1.4	1.7			V
Maximum DC reverse current T _A =25°C at rated DC blocking voltage T _A =125°C	I _R	5.0 100							uA
Maxinum reverse recovery time(Note 1)	T _{rr}	50				75			ns
Typical junction capacitance (Note2)	C _J	20.0							pF
Typical thermal resistance	R _{qJA}	80.0							°C/W
Operating junction and storage temperature range	T _J ,T _{STG}	-65 to +150							°C

Note: 1.Reverse recovery time test condition: $I_F=0.5\text{A}$ $I_R=1.0\text{A}$ $I_{rr}=0.25\text{A}$

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

Ratings And Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

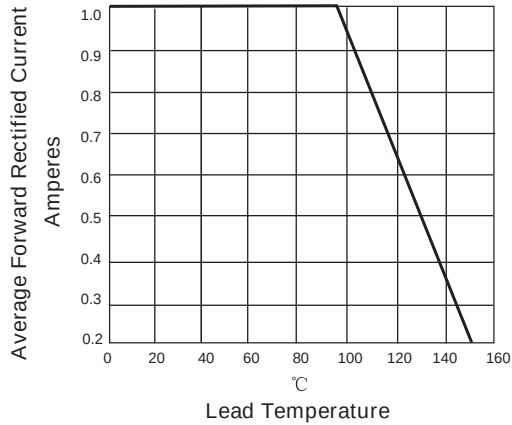


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

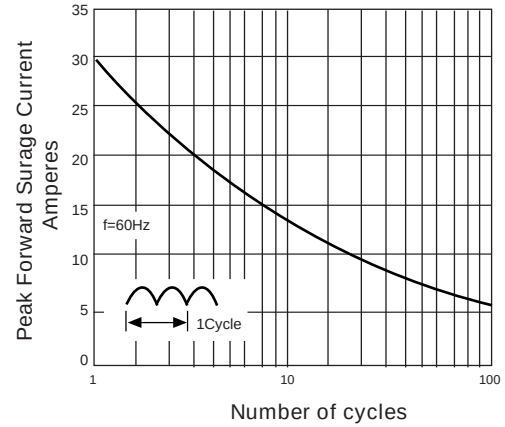


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

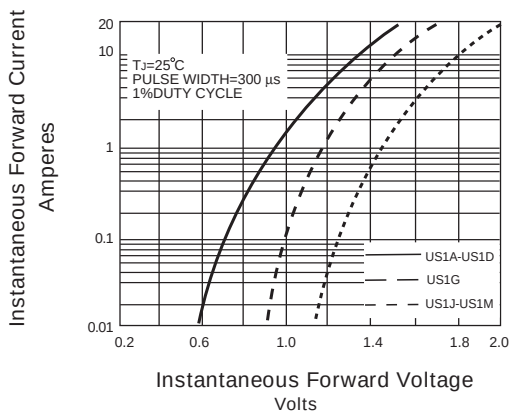


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS

