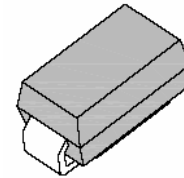


1.0A Surface Mount Ultra Fast Recovery Rectifier

Features

- Glass passivated junction chip
- Fast switching for high efficiency
- For surface mounted application
- High temperature soldering guaranteed: 250°C/10 seconds, at terminals
- Plastic material used carries UL Classification 94V-0
- RoHS Compliance



SMA

Maximum Ratings and Electrical Characteristics ($T_A=25^\circ\text{C}$ unless otherwise noted)

Symbol	Description	US1A	US1B	US1D	US1G	US1J	US1K	US1M	Unit	Conditions
V_{RRM}	Maximum Repetitive Peak Reverse Voltage	50	100	200	400	600	800	1000	V	
V_{RMS}	Maximum RMS Voltage	35	70	140	280	420	560	700	V	
V_{DC}	Maximum DC Blocking Voltage	50	100	200	400	600	800	1000	V	
I_{F(AV)}	Maximum Average Forward Rectified Current	1.0							A	See Fig.1
I_{FSM}	Peak Forward Surge Current	30							A	8.3ms single half sine-wave superimposed on rated load (JEDEC Method)
V_F	Maximum Instantaneous Forward Voltage	1.0			1.25	1.7		V	I _{F(AV)} =1.0A	
I_R	Maximum DC Reverse Current at Rated DC Blocking Voltage	5.0							μA	T _A =25°C
		100								T _A =125°C
T_{rr}	Maximum Reverse Recovery Time	50				75			nS	I _F =0.5A, I _R =1.0A, I _{rr} =0.25A
C_J	Typical Junction Capacitance	17							pF	V _R =4V, f=1MHz

Symbol	Description	US1A	US1B	US1D	US1G	US1J	US1K	US1M	Unit	Conditions
T _J , T _{STG}	Operating Junction and Storage Temperature Range	-55 to +150							°C	

Typical Characteristics Curves

Fig.1- Forward Current Derating Curve

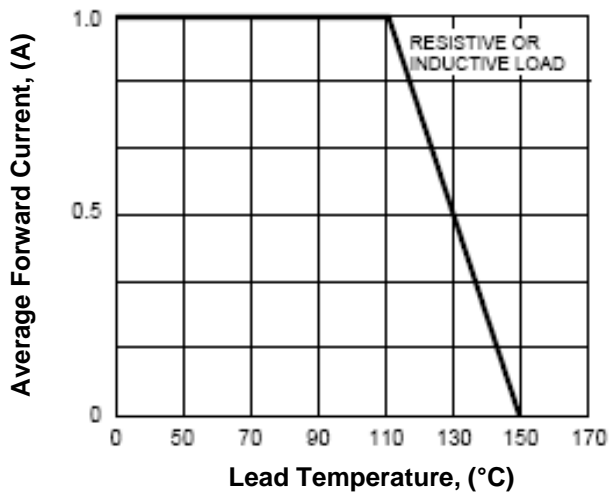


Fig.2- Maximum Non-Repetitive Forward Surge Current

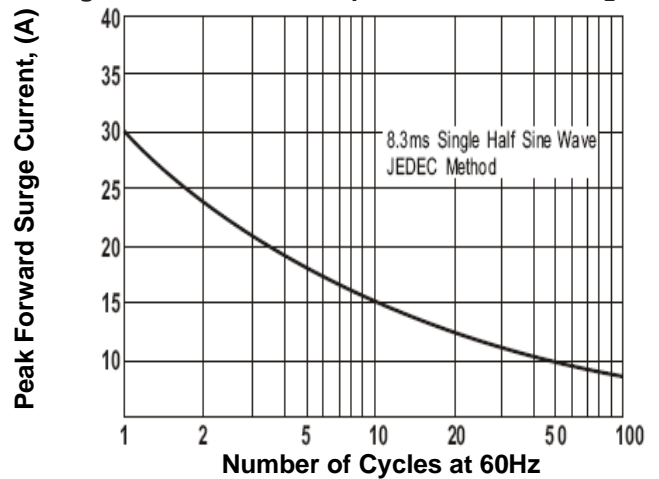


Fig.3- Typical Forward Characteristics

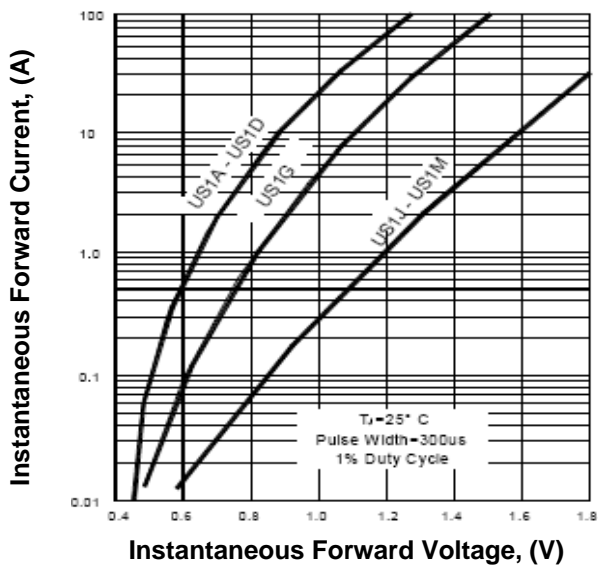


Fig.4- Typical Reverse Characteristics

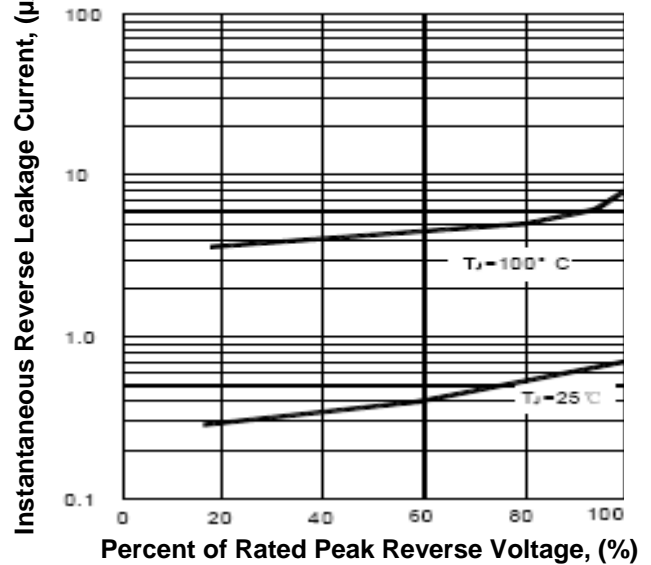
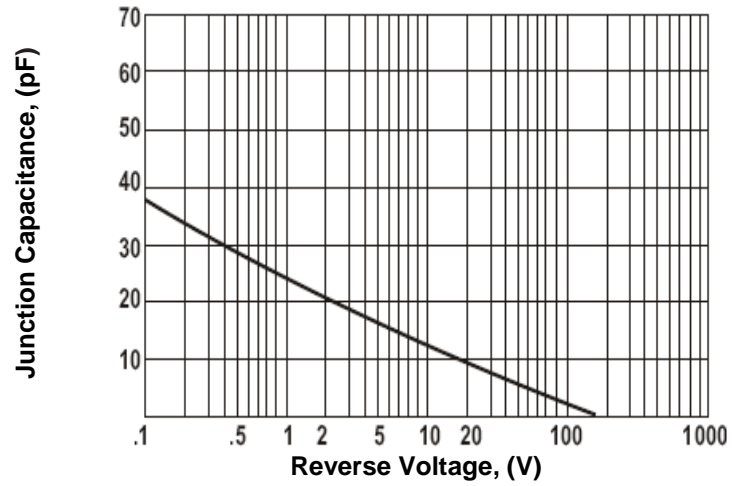
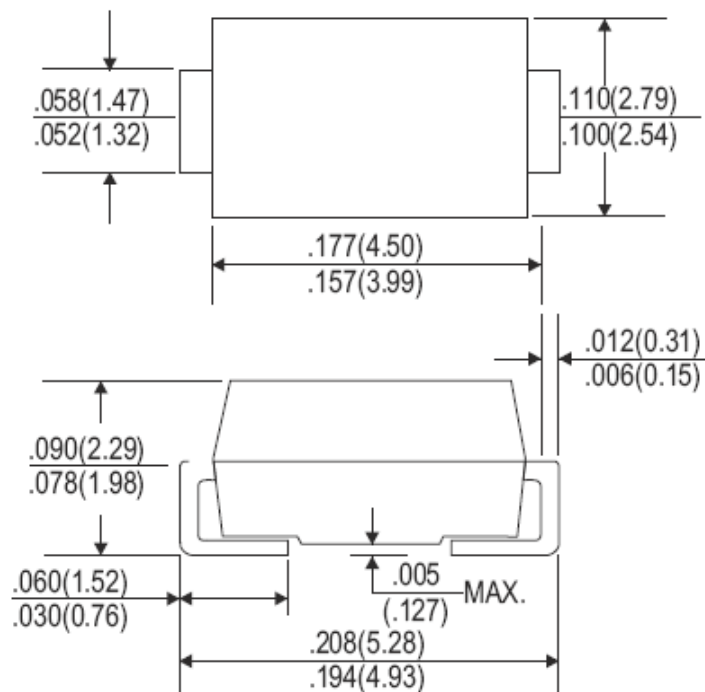


Fig.5-Typical Junction Capacitance



Dimensions in inches (mm)



SMA (DO-214AC)