



UF3AA - UF3MA

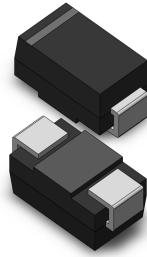
SURFACE MOUNT ULTRA FAST RECTIFIER DIODES

VOLTAGE RANGE: 50 - 1000V

CURRENT: 3.0 A

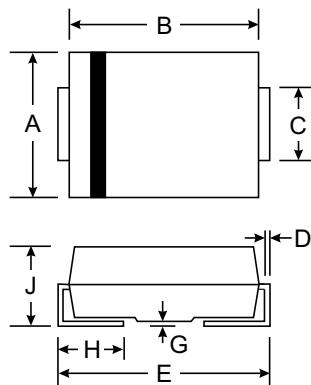
Features

- Glass Passivated Die Construction
- Ideally Suited for Automatic Assembly
- Low Forward Voltage Drop, High Efficiency
- Low Power Loss
- Ultra-Fast Recovery Time
- Plastic Case Material has UL Flammability Classification Rating 94V-O



Mechanical Data

- Case: SMA/DO-214AC, Molded Plastic
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Polarity: Cathode Band or Cathode Notch
- Marking: Type Number
- Weight: 0.064 grams (approx.)



SMA(DO-214AC)		
Dim	Min	Max
A	2.29	2.92
B	4.00	4.60
C	1.27	1.63
D	0.15	0.31
E	4.80	5.59
G	0.10	0.20
H	0.76	1.52
J	2.01	2.62

All Dimensions in mm

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

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Characteristic	Symbol	UF3AA	UF3BA	UF3DA	UF3GA	UF3JA	UF3KA	UF3MA	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 0.375" (9.5mm) lead length at $T_A=55^\circ\text{C}$	$I_{(AV)}$	3.0							A			
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	100.0							A			
Maximum instantaneous forward voltage at 3.0A	V_F	1.0		1.30	1.70				V			
Maximum DC reverse current $T_A=25^\circ\text{C}$ at rated DC blocking voltage $T_A=100^\circ\text{C}$	I_R	5.0 250.0							μA			
Maximum reverse recovery time (NOTE 1)	t_{rr}	50			75				ns			
Typical junction capacitance (NOTE 2)	C_J	75							pF			
Typical thermal resistance	R_{eJL}	15.0							$^\circ\text{C/W}$			
Operating junction and storage temperature range	T_J, T_{STG}	-65 to +150							$^\circ\text{C}$			

Note: 1.Reverse recovery 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.



Siimamate

Fig. 1 – Maximum Forward Current Derating Curve

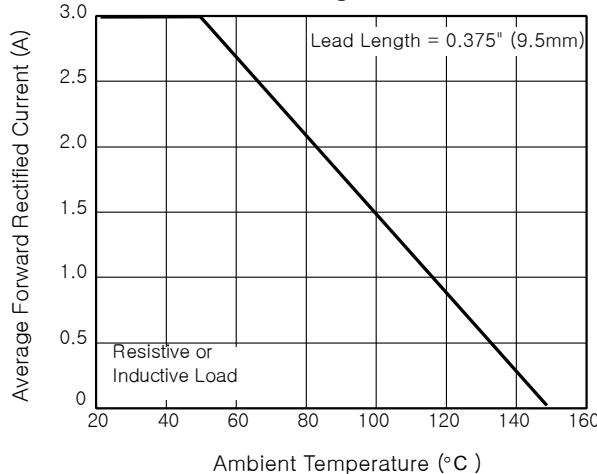


Fig. 3 – Typical Instantaneous Forward Characteristics

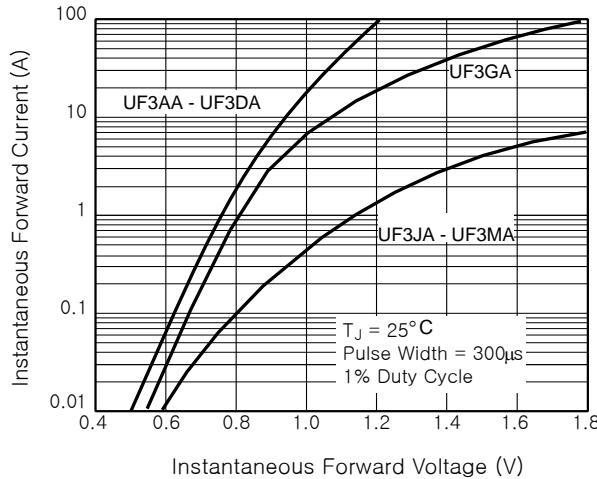


Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current

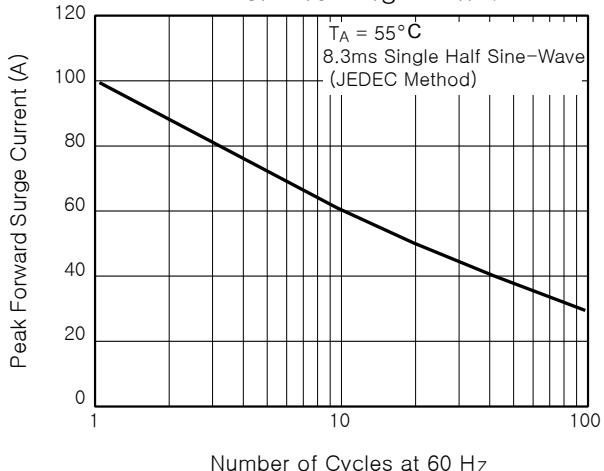


Fig. 4 – Typical Reverse Leakage Characteristics

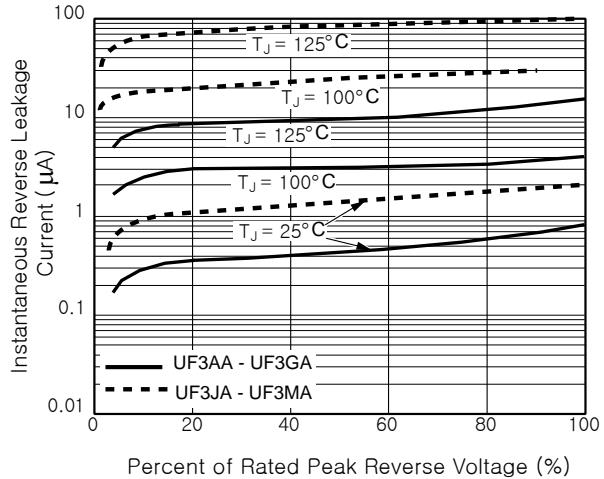


Fig. 5 – Typical Junction Capacitance

