

Features

- $I_{F(AV)}$ 1A
- V_{RRM} 50V-1000V
- High surge current capability
- Polarity: Color band denotes cathode

Applications

- Rectifier

Marking

- RS1X

X:From A To M



SMA top view



Schematic diagram



Halogen-Free

Limiting Values(Absolute Maximum Rating)

Symbol	Parameter	Test Conditions	RS1							Unit
			A	B	D	G	J	K	M	
V_{RRM}	Peak Repetitive Reverse Voltage		50	100	200	400	600	800	1000	V
V_{RMS}	Maximum RMS Voltage		35	70	140	280	420	560	700	V
$I_{F(AV)}$	Average Forward Current	60Hz Half-sine wave, Resistance load, $T_a=75^{\circ}\text{C}$	1.0							A
I_{FSM}	Surge(Non-repetitive)Forward Current	60Hz Half-sine wave, 1 cycle, $T_a=25^{\circ}\text{C}$	30							A
T_J, T_{STG}	Operating and Storage Temperature Range		-55 ~ +150							$^{\circ}\text{C}$

Electrical Characteristics (T=25°C Unless otherwise specified)

Symbol	Parameter	Condition	RS1							Unit
			A	B	D	G	J	K	M	
V _F	Reverse voltage	I _F =1.0A	1.3							V
trr	Reverse current	I _F =0.5A,I _R =1.0A,I _{rr} =0.25A	150				250	500		ns
I _{RRM1}	Peak Reverse Current	V _{RM} =V _{RRM} T _a =25℃	5							μA
I _{RRM2}		V _{RM} =V _{RRM} T _a =125℃	50							
R _{θJ-A}	Thermal Resistance(Typical)	Between junction and ambient	75							℃/W
R _{θJ-L}		Between junction and terminal	27							
C _j	Juction Capacitance (Typical)	Measured at 1MHZ and Applied Reverse Voltage of 4.0 V D.C.	6							pF

Notes: Thermal resistance from junction to ambient and from junction to lead mounted on FR4 PCB double sided copper mini pad

Typical Operating Characteristics

FIG.1: FORWARD CURRENT DERATING CURVE

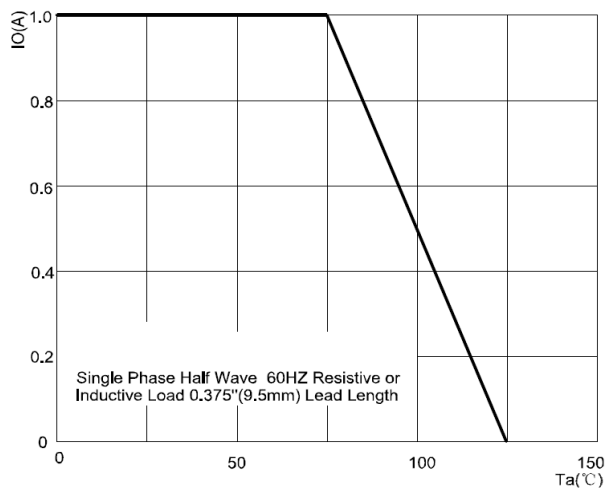


FIG.2: MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

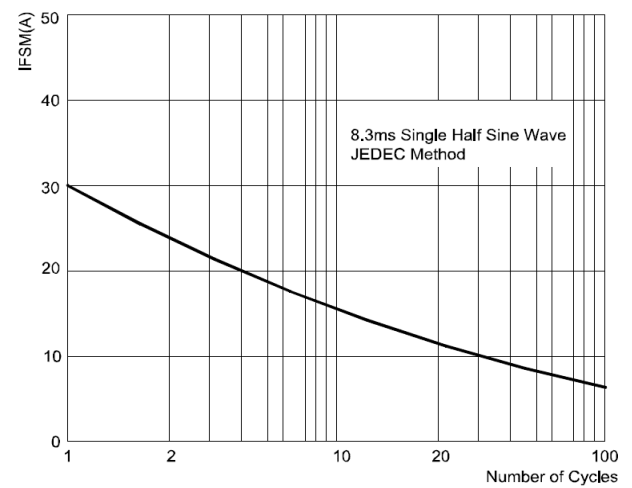


FIG.3: TYPICAL FORWARD CHARACTERISTICS

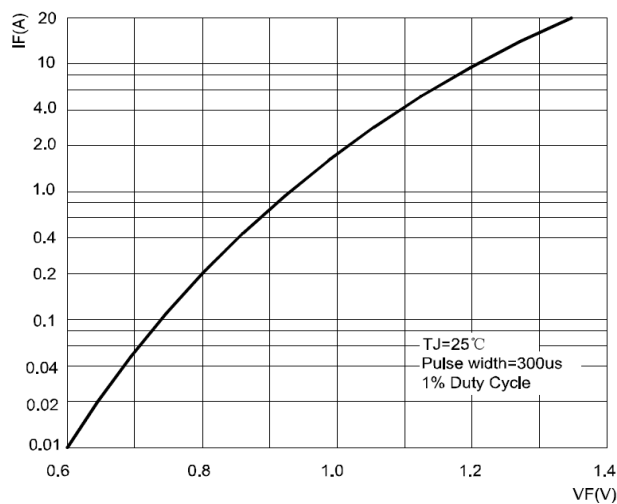


FIG.4: TYPICAL REVERSE CHARACTERISTICS

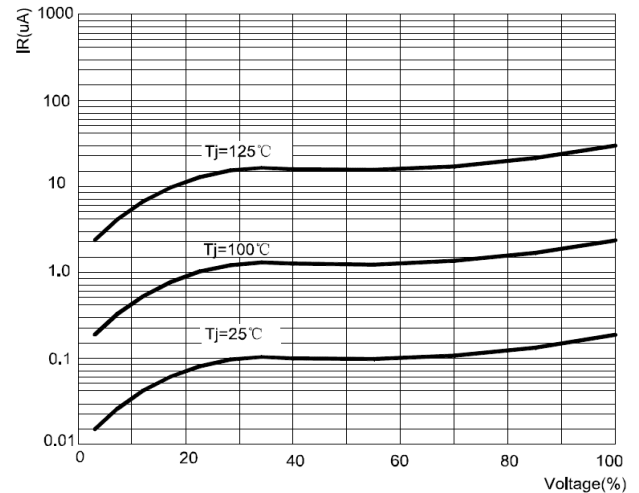
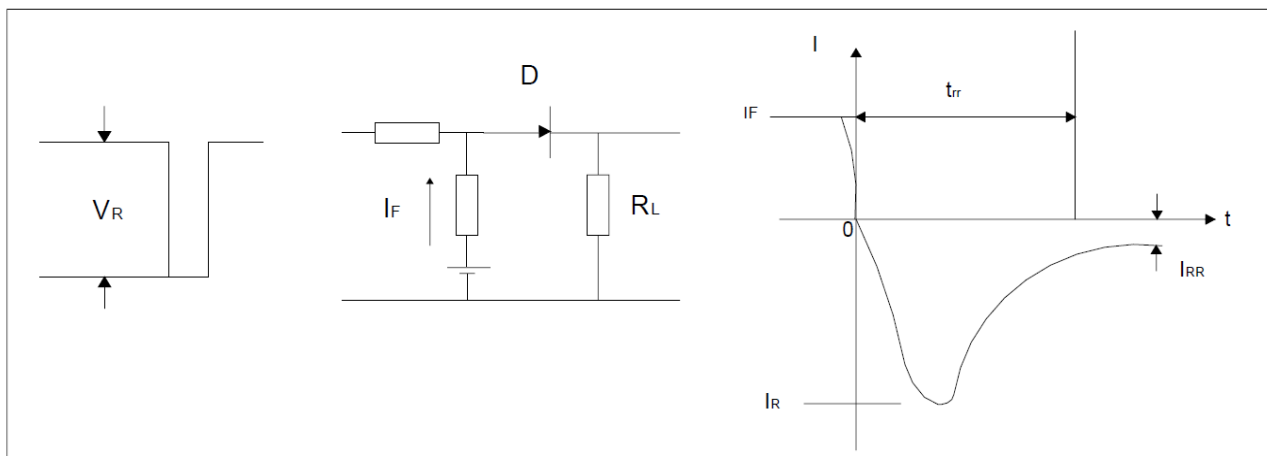
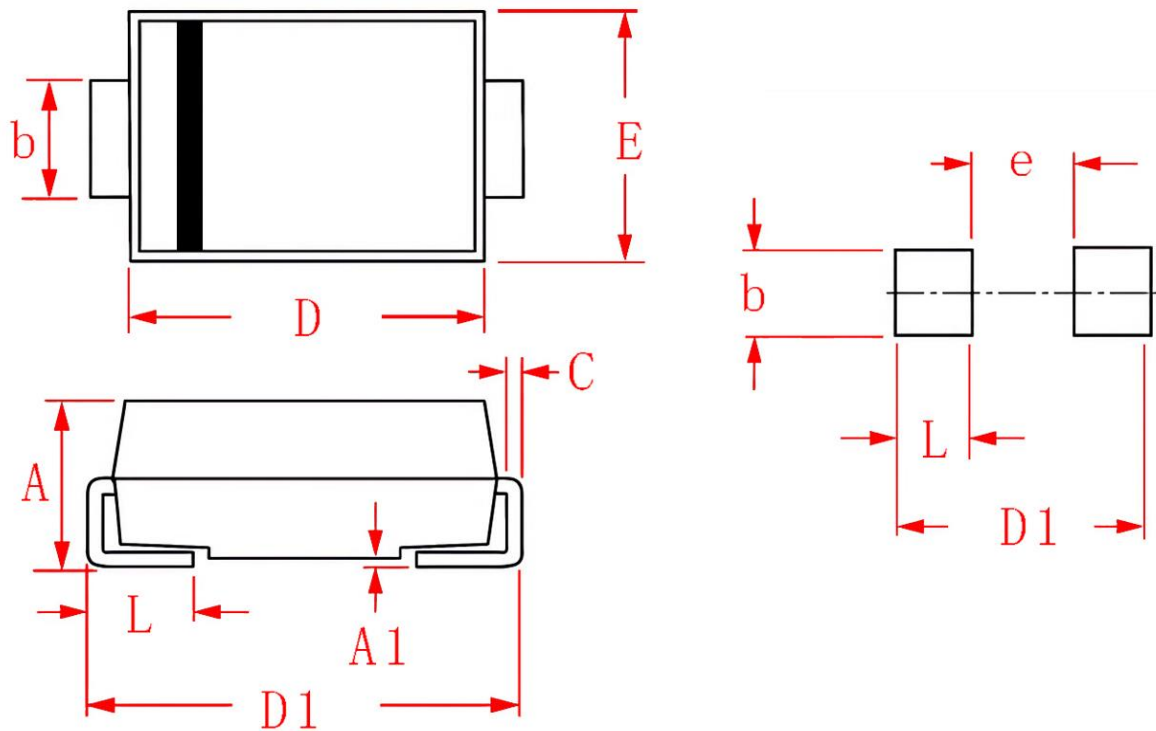


FIG.5: Diagram of circuit and Testing wave form of reverse recovery time



SMA Package information

SMA (DO-214AC)



Symbol	Dimensions in Millimeters(mm)		Dimensions In Inches	
	Min	Max	Min	Max
A	1.900	2.200	0.075	0.087
A1	0.050	0.200	0.002	0.008
b	1.300	1.600	0.051	0.063
C	0.150	0.310	0.006	0.012
D	4.000	4.500	0.157	0.177
D1	4.700	5.200	0.185	0.205
E	2.300	2.700	0.090	0.106
e	-	1.880	-	0.074
L	0.900	1.500	0.035	0.059