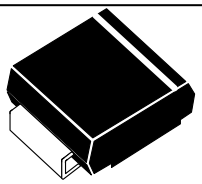
WRMx

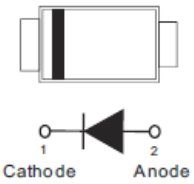
Surface Mount General Purpose Silicon Rectifiers

Features

- For surface mounted applications
- Low profile package
- Easy to pick and place
- Reverse Voltage - 50 to 1000 V
- Forward Current - 1 A
- RoHS & HF Compliant
- MSL: Level 1



SMA
(JEDEC DO-214AC)



Mechanical Characteristics

- Case: SMA(JEDEC DO-214AC),molded plastic body
- Mounting position: any
- Polarity: Color band denotes cathode end

Maximum Ratings and Electrical characteristics

Ratings at 25 ambient temperature unless otherwise specified.

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

Parameter	Symbol	WRM1	WRM2	WRM3	WRM4	WRM5	WRM6	WRM7	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	$I_{F(AV)}$	1							A
Peak forward surge current 8.3ms single half sine wave superimposed on rated load	I_{FSM}	30							A
Maximum instantaneous forward voltage at 1A	V_F	1.1							V
Maximum DC reverse current (Ta= 25℃) at rated DC blocking voltage (Ta=125℃)	I_R	5 100							μA
Typical Junction Capacitance(1)	C_j	20							pF
Typical Thermal Resistance(2)	$R_{\theta JA}$	75							℃/W

Operating and Storage temperature range	T_J,Tstg	-55 ~ +150	℃

(1) Measured at 1 MHz and applied reverse voltage of 4 V D.C

(2) P.C.B. mounted with 1.0" X 1.0" (2.54 X 2.54 cm) copper pad areas.

Electrical Characteristics Curves

Fig. 1 Forward Current Derating Curve

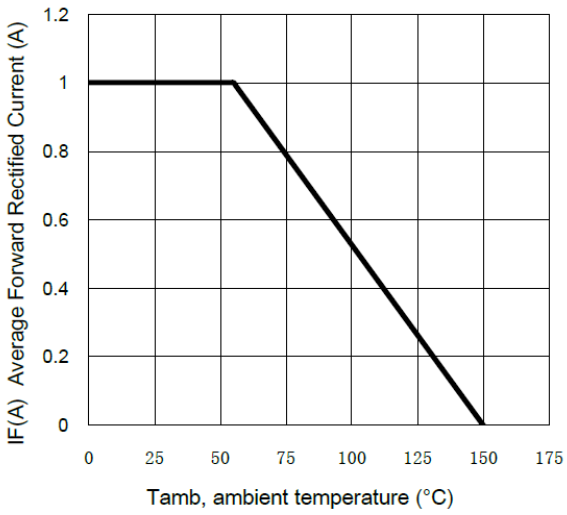


Fig. 2 Typical Forward Characteristics

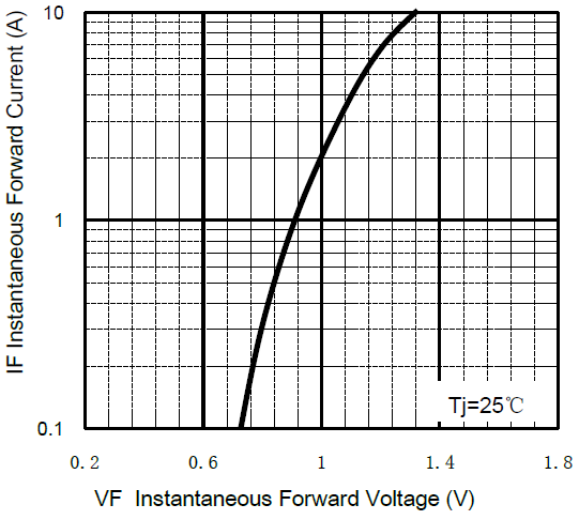


Fig. 3 Forward Surge Current Capability

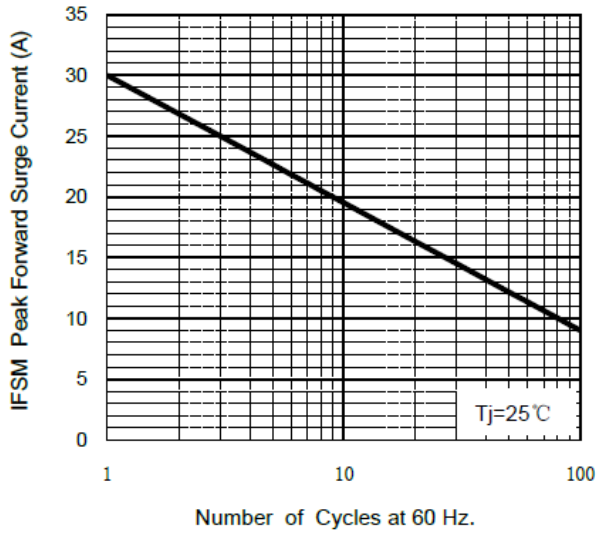
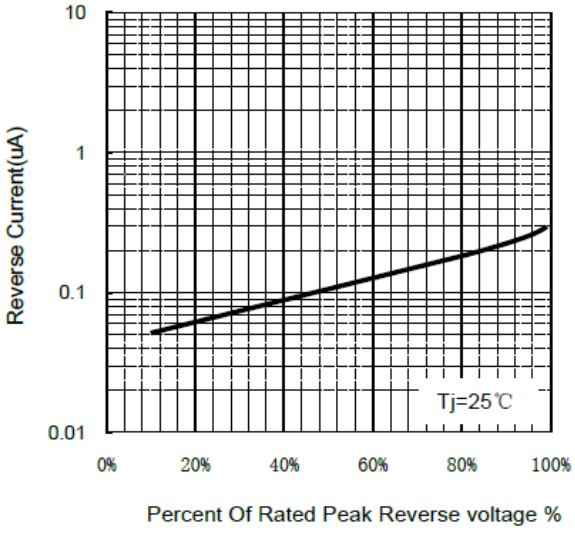


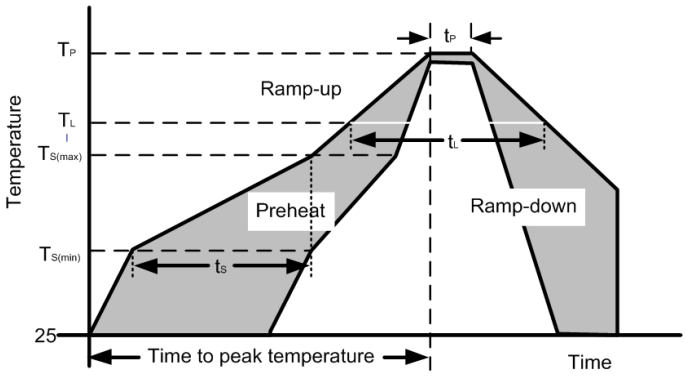
Fig.4 Typical Reverse Characteristics



Note: The above typical parameters or typical characteristics are only indicative and do not make specific guarantees. If detailed values are required, additional communication and provision are required.

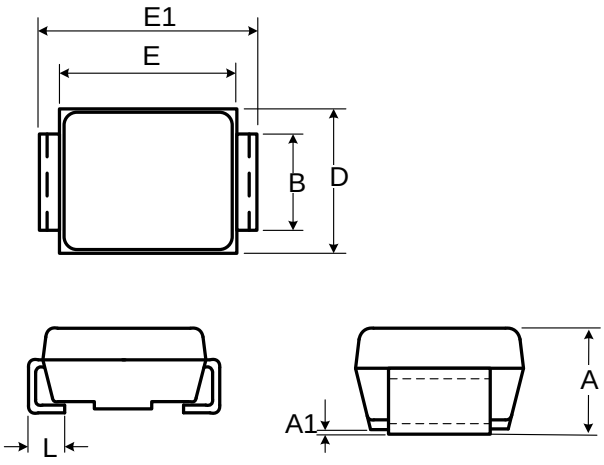
Soldering Parameters

Reflow Condition		
Pre Heat	Temperature Min ($T_{s(min)}$)	150°C
	Temperature Max ($T_{s(max)}$)	200°C
	Time (min to max) (t_s)	60-190 s
Average ramp up rate (Liquidus Temp) (T_L) to peak		3°C/s max
Ts(max) to TL - Ramp-up Rate		3°C/s max
Reflow	Temperature (T_L) (Liquidus)	217°C
	Temperature (t_L)	60-150 s
Peak Temperature (T_P)		$260^{+0/-5}$ °C
Time within actual peak Temperature (t_p)		20-40 s
Ramp-down Rate		5°C/s max
Time 25°C to peak Temperature (T_P)		8 minutes Max.
Do not exceed		260°C



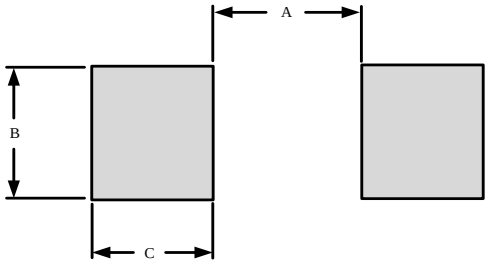
Product Dimensions

Ref.（mm）	Millimeters	
	Min.	Max.
A	1.90	2.62
A1	-	0.31
B	1.25	1.65
E	3.95	4.75
E1	4.70	5.28
D	2.30	2.83
L	0.76	1.52



Recommended Solder Pad Layout

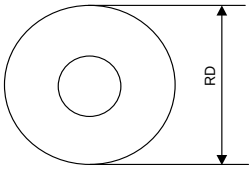
DIM(mm)	MILLIMETERS
A	**2.3**
B	**1.8**
C	**2.1**



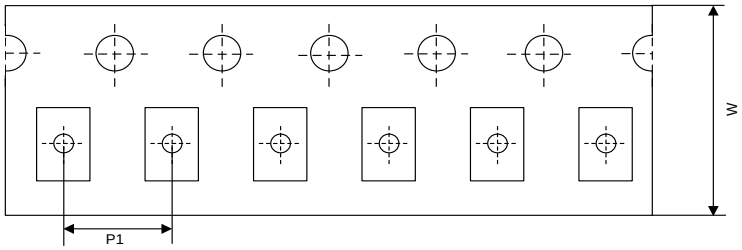
Tape and Reel Information

RD	Reel Dimensions	13 inch
W	Overall width of the carrier tape	12 mm
P1	Pitch between successive cavity centers	4 mm

Reel Dimensions Schematic diagram



Tape Dimensions Schematic diagram



Quadrant Assignments for PIN1 Orientation in tape

Marking

Part Number	WRM1	WRM2	WRM3	WRM4	WRM5	WRM6	WRM7
Marking Code	M1	M2	M3	M4	M5	M6	M7

Package Information

Package Type	**Description**	**Quantity（pcs）**
SMA(DO-214AC)	Tape & Reel Pack	5000

Contact Information

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For additional information, please contact your local Sales Representative.

Product Specification Statement

The product specification aims to provide users with a reference regarding various product parameters, performance, and usage. It presents certain aspects of the product's performance in graphical form and is intended solely for users to select product and make product comparisons, enabling users to better understand and evaluate the characteristics and advantages of the product. It does not constitute any commitment, warranty, or guarantee.

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