

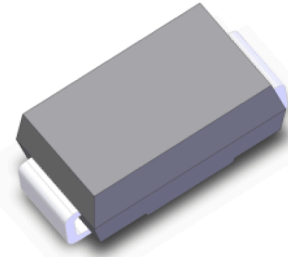


**THE DATASHEET OF**  
**V7**



## Features

- Glass passivated Standard rectifiers
- Ideal for automated placement
- Low forward voltage drop
- High forward surge capability
- Moisture sensitivity: level 1, per J-STD-020



DO-214AC(SMA)

## Typical Applications

- For use of general purpose rectification in lighting, cellular phone, portable device, power supplies and other consumer applications.

## Mechanical Data

- Case:DO-214AC, molded epoxy body, Epoxy meets UL 94V-0 flammability rating
- Terminal:Matte tin plated leads, solderable per J-STD-002 and JESD22B-106
- Polarity:Indicated by cathode band

## Maximum Ratings and Electrical Characteristics

(TA = 25 °C unless otherwise noted)

Parameter	Symbols	V1	V2	V3	V4	V5	V6	V7	Unit	
Maximum repetitive peak reverse voltage	VRRM	50	100	200	400	600	800	1000	V	
Maximum RMS voltage	VRMS	35	70	140	280	420	560	700	V	
Maximum DC blocking voltage	VDC	50	100	200	400	600	800	1000	V	
Maximum average forward rectified current TL (See Fig.1)	IF(AV)	1.0							A	
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	IFSM	35.0							A	
Maximum forward voltage at IF=1.0Amps	VF	0.98							Volts	
Maximum DC reverse current at rated DC blocking voltage	@Ta=25°C	5.0							uA	
	@Ta=125°C	50.0								
Typical junction capacitance(Note1)	CJ	6.0							pF	
Typical thermal resistance(Note2)	Junction to ambient	RθJA	62.0							°C/W
	Junction to case	RθJC	25.0							
	Junction to lead	RθJL	3.5							
Operating junction and storage temperature range	TJ, TSTG	- 55 to + 150							°C	

Notes:1.Measured at 1.0MHz and applied reverse voltage of 4.0 D.C.

2.Thermal resistance from junction to ambient,case and lead, 0.197×0.197" (5.0×5.0mm) copper pads to each terminal

## Ratings and Characteristics Curves

(TA = 25°C unless otherwise noted)

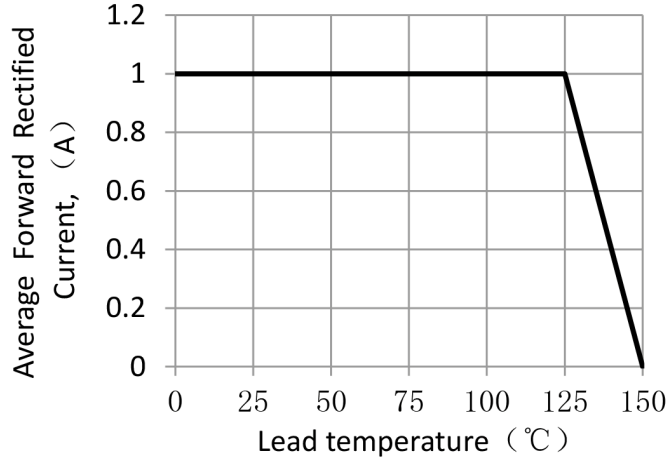


Figure 1. Forward Current Derating Curve

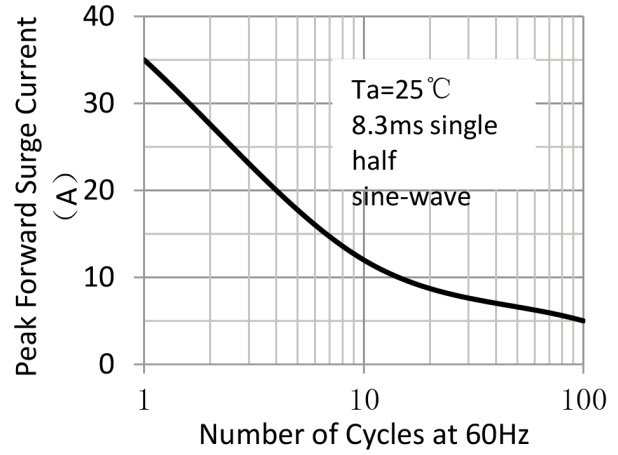


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

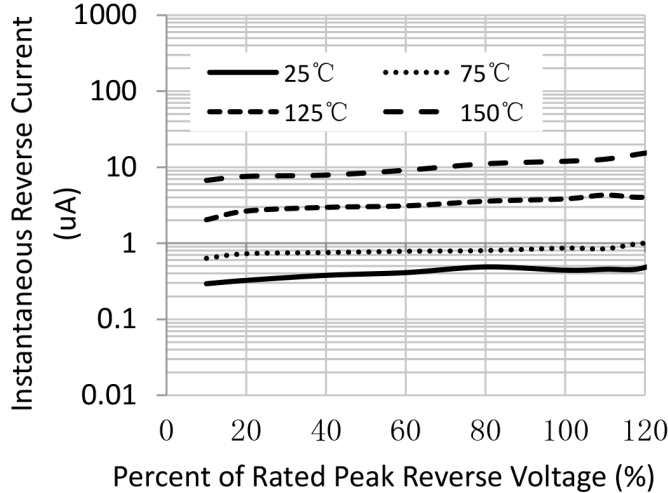


Figure 3. Typical Reverse Characteristics

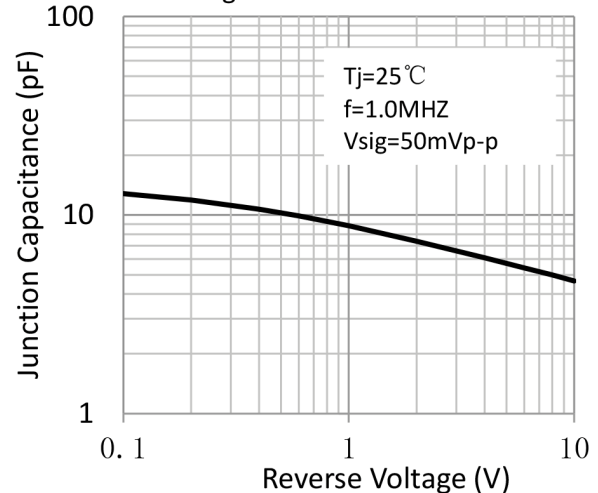


Figure 4. Typical Junction Capacitance

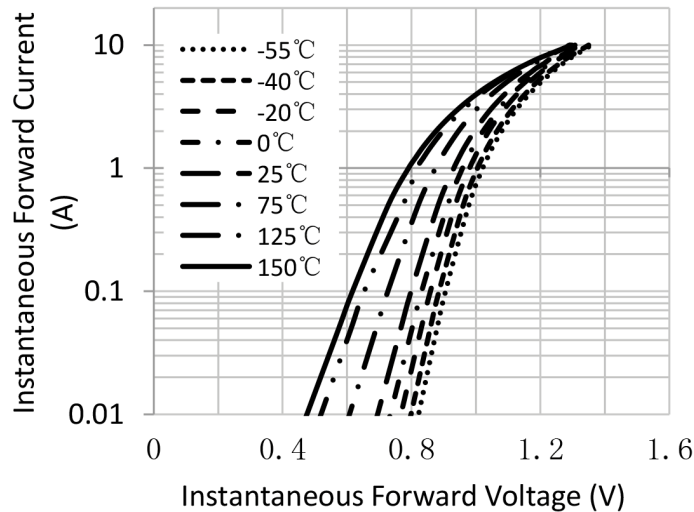
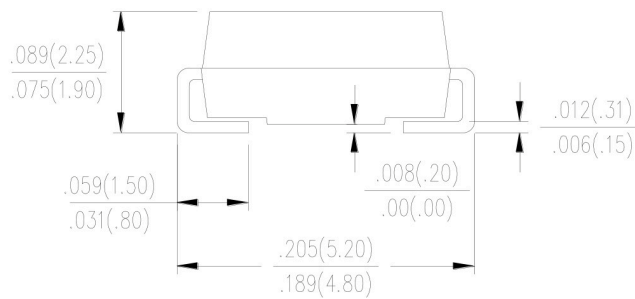
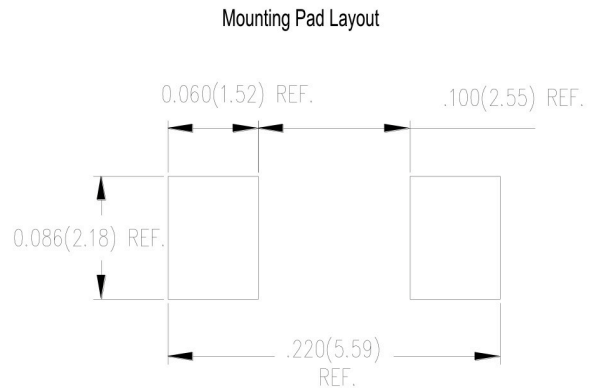
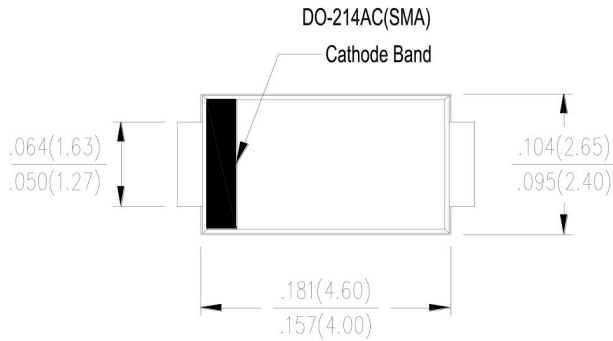


Figure 5. Typical Instantaneous Forward Characteristics

## Package Outline Dimensions

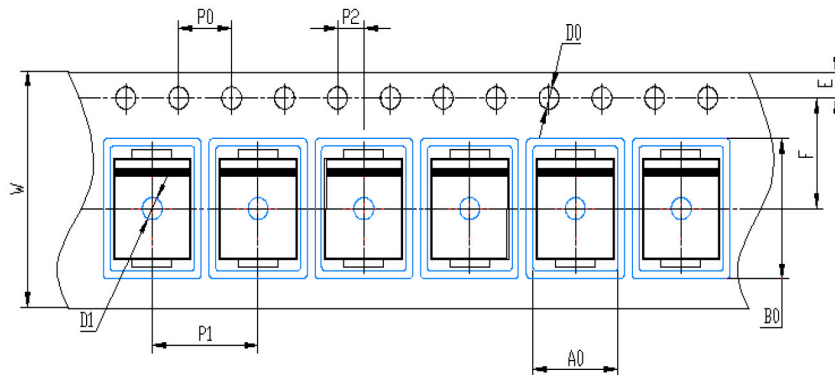
in inches (millimeters)



## Packing Information

7500 pcs/Reel, 18 Reels/Box; 12mm Tape, 13" Reel



### Tape & Reel Specification



Symbols	SMA(mm)
W	12 ± 0.2
E	1.75 ± 0.1
F	5.5 ± 0.05
D0	1.5 ± 0.1
D1	1.50 +0.1/-0
P0	4.0 ± 0.1
P1	4.0 ± 0.1
P2	2.0 ± 0.05
A0	2.65 ± 0.1
B0	5.25 ± 0.1

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