

## SM220A thru SM2100A

### FEATURES

- \* Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- \* Low power loss, high efficiency
- \* For use in low voltage high frequency inverters, free wheeling, and polarity protection applications
- \* Guardring for over voltage protection
- \* High temperature soldering guaranteed: 260°C/10 seconds at terminals

### Mechanical Data

**Case:** JEDEC DO-214AC,

molded plastic over glass body

**Terminals:** Plated axial leads, solderable per MIL-STD-750, Method 2026

**Polarity:** Color band denotes cathode end

**Mounting Position:** Any

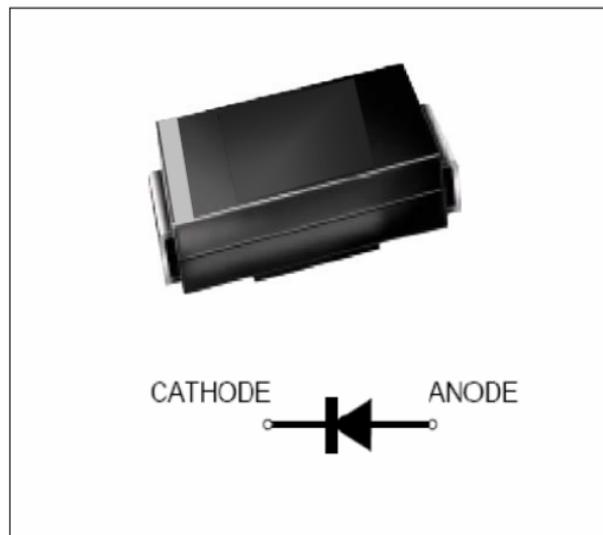
**Weight:** 0.0028 oz., 0.08 g

**Handling precaution:** None

### Schottky Barrier Rectifiers

**Reverse Voltage 20 to 100V**

**Forward Current 2.0A**



We declare that the material of product compliance with RoHS requirements.

### Electrical Characteristic

**Maximum Ratings & Thermal Characteristics Ratings** at 25°C ambient temperature unless otherwise specified.

Parameter Symbol	symbol	SM 220A	SM 230A	SM 240A	SM 250A	SM 260A	SM 280A	SM 2100A	Unit
Maximum repetitive peak reverse voltage	$V_{RRM}$	20	30	40	50	60	80	100	V
Maximum RMS voltage	$V_{RMS}$	14	21	28	35	42	56	70	V
Maximum DC blocking voltage	$V_{DC}$	20	30	40	50	60	80	100	V
Maximum average forward rectified current 0.375" (9.5mm) lead length (See fig. 1)	IF(AV)					2.0			A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$					50			A
Typical thermal resistance (Note 1)	$R_{\theta JA}$				50				$^{\circ}\text{C}/\text{W}$
Operating junction and storage temperature range	TJ, TSTG					−40 to +125			$^{\circ}\text{C}$

**Electrical Characteristics Ratings** at 25°C ambient temperature unless otherwise specified.

Parameter Symbol	symbol	SM 220A	SM 230A	SM 240A	SM 250A	SM 260A	SM 280A	SM 2100A	Unit
Maximum instantaneous forward voltage at 2.0A	$V_F$		0.50		0.70		0.85		V
Maximum DC reverse current TA = 25°C at rated DC blocking voltage TA = 125°C	IR			0.5					mA
Typical junction capacitance at 4.0V, 1MHz	CJ			110					PF

### NOTES:

- Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted

## Ratings and Characteristic Curves

Fig. 1 - Forward Current Derating Curve

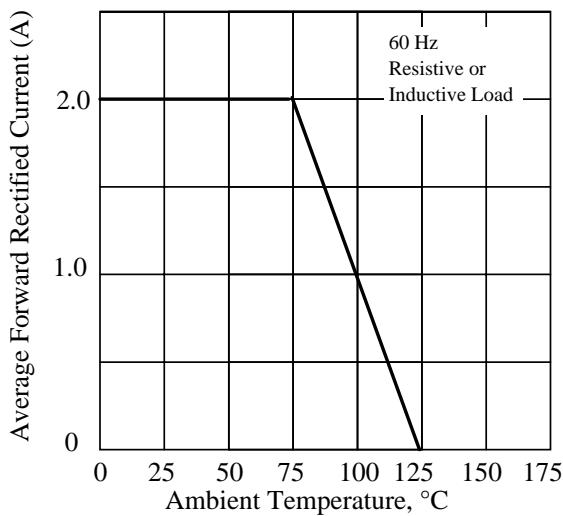


Fig 3. - Typical Instantaneous Forward Characteristics

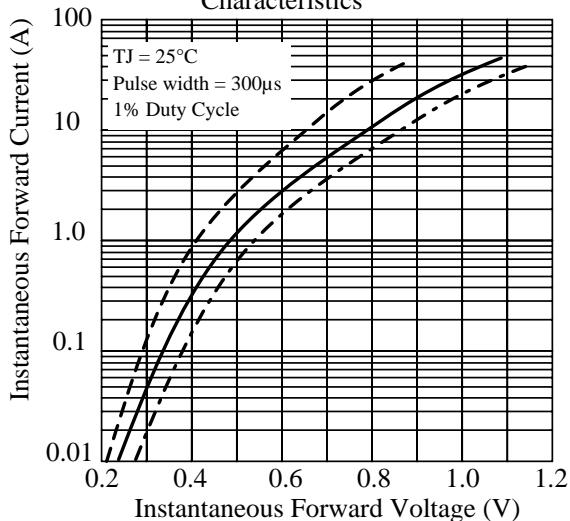
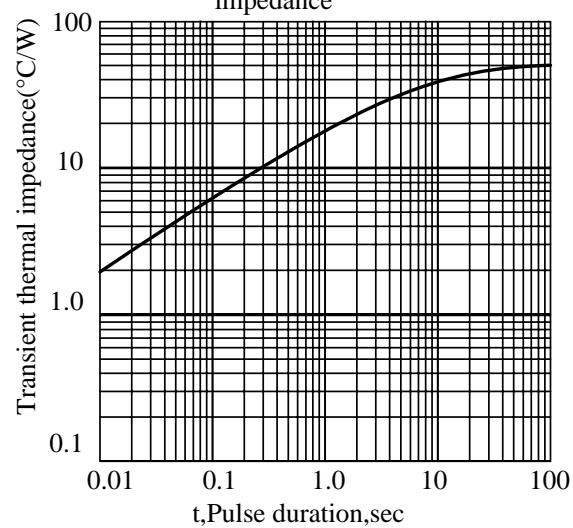


Fig 5. - typical transient thermal impedance



( TA = 25°C unless otherwise noted )

Fig. 2 - Maximum Non-repetitive Peak Forward Surge Current

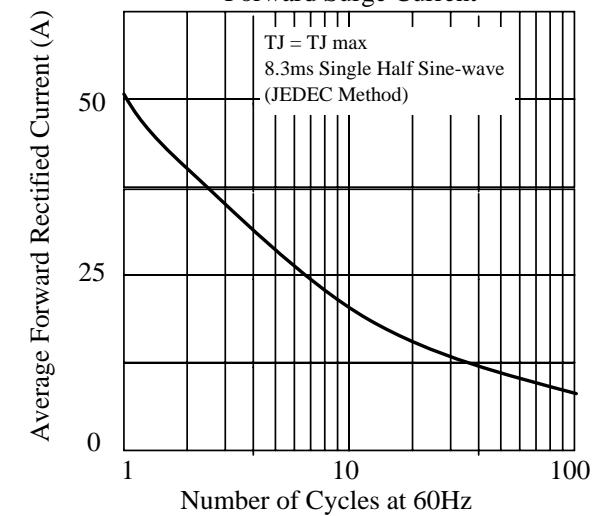


Fig 4. - Typical Reverse Characteristics

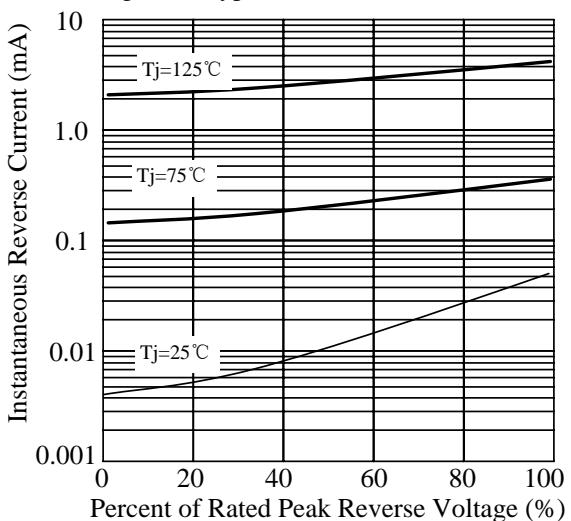
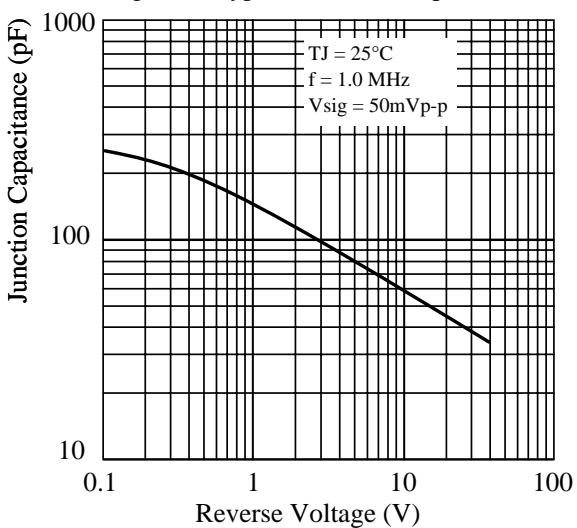
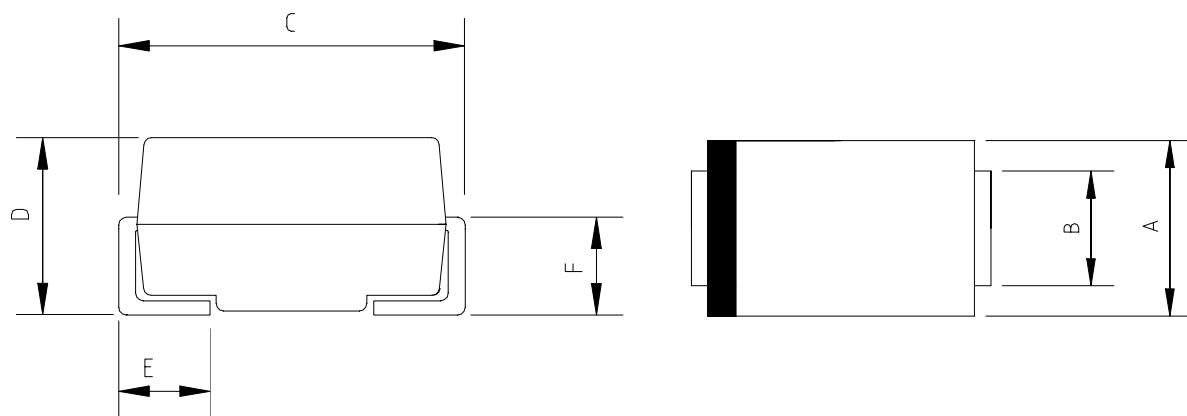


Fig 6. - Typical Junction Capacitance



**Package Dimensions in inches and (millimeters)**

Package outline

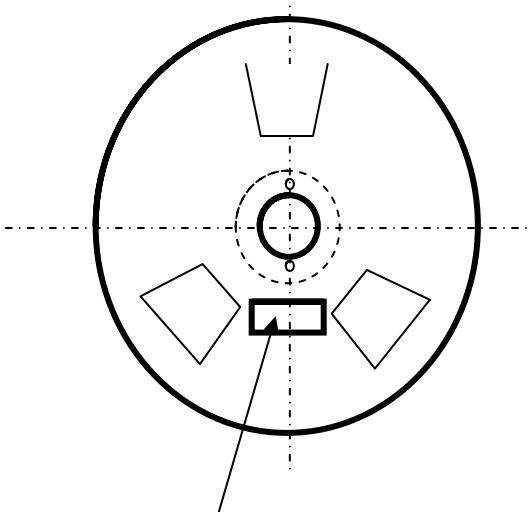


Dimensions				
	inches		mm	
	Min.	Max.	Min.	Max.
A	0.086	0.110	2.2	2.8
B	0.051	0.067	1.3	1.7
C	0.185	0.209	4.7	5.3
D	0.067	0.100	1.7	2.55
E	0.035	0.059	0.9	1.5
F	0.035	0.059	0.9	1.5

Note:  
DO-214AC  
molded plastic case  
The marking band indicates the cathode

## SMA Packing Specification

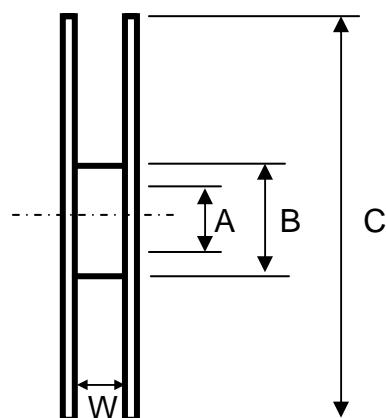
### 1. 卷盘规格/Reel Packing



Label stike this position

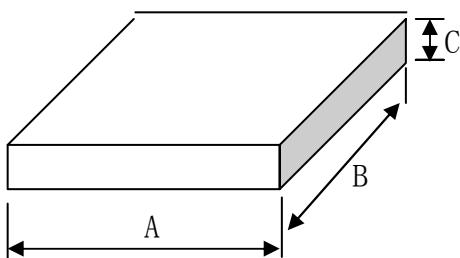
Item	Q'ty/Taping
7"	2K
13"	5K

Unit:mm



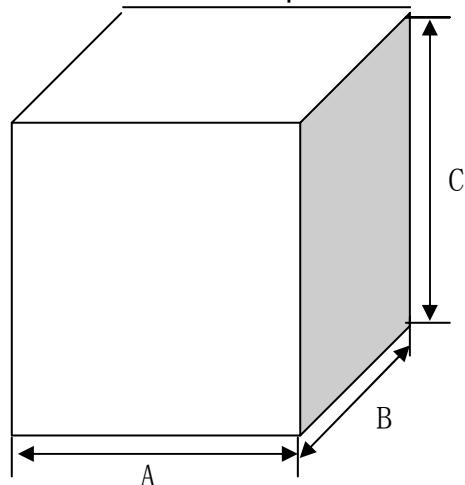
Item	Symbol	Dimension
13" Size	A	13.0±0.2
	B	75.0±0.5
	C	330±1.0
	W	13.2±1.0
7" Size	A	13.0±0.2
	B	54±0.5
	C	177±1.0
	W	13.2±1.0

### 2. 内箱规格/ Inside Box Specification



Item	Symbol	Dimension
Size	A	335±2
	B	335±2
	C	40±1

### 3. 外箱规格/Outer Box Specification



Item	Symbol	Dimension
Size	A	350±2
	B	350±2
	C	345±2