

## SK12 thru SK110

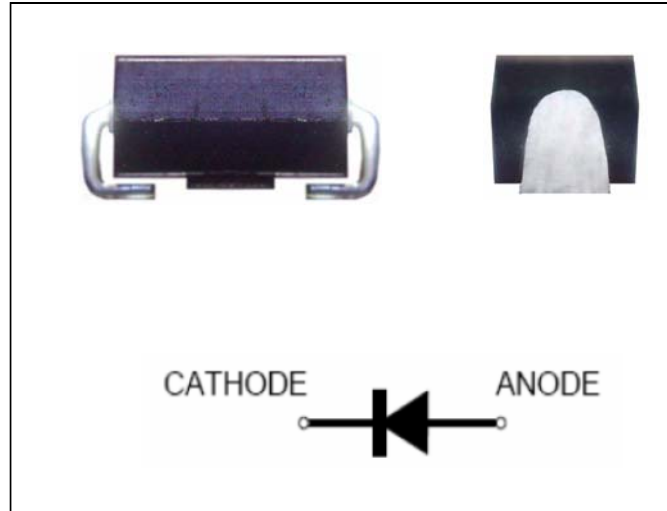
**Surface Mount  
Schottky Barrier Rectifiers**  
Reverse Voltage 20 to 100V  
Forward Current 1.0A

### 1. 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

### 2. Mechanical Data

**Case:** JEDEC DO-214AC,  
molded plastic over glass body  
**Terminals:** Solderable per MIL-STD-750, Method 2026  
**Polarity:** Color band denotes cathode end  
**Mounting Position:** Any  
**Weight:** 0.003 oz., 0.085 g  
**Handling precaution:** None



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

### 3. Electrical Characteristic

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

Parameter Symbol	symbol	SK12	SK13	SK14	SK15	SK16	SK18	SK19	SK110	Unit
Marking		K12	K13	K14	K15	K16	K18	K19	K110	
Maximum repetitive peak reverse voltage	$V_{RRM}$	20	30	40	50	60	80	90	100	V
Maximum RMS voltage	$V_{RMS}$	14	21	28	35	42	56	63	70	V
Maximum DC blocking voltage	$V_{DC}$	20	30	40	50	60	80	90	100	V
Maximum average forward rectified current 0.375" (9.5mm) lead length at $T_A = 75^\circ C$	$I_{F(AV)}$	1.0								A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	30								A
Maximum thermal resistance	$R_{\theta JA}$	50								°C/W
Operating junction and storage temperature range	$T_J, T_{STG}$	-40 to +125								°C

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

Parameter Symbol	symbol	SK12	SK13	SK14	SK15	SK16	SK18	SK19	SK110	Unit	
Maximum instantaneous forward voltage at 1.0A	$V_F$	0.45	0.5		0.7		0.85			V	
Maximum DC reverse current $T_A = 25^\circ C$ at rated DC blocking voltage $T_A = 125^\circ C$	$I_R$	0.5				5					mA
Typical junction capacitance at 4.0V, 1MHz	$C_J$	110.0									PF

**4. Ratings and Characteristic Curves** (  $T_A = 25^\circ\text{C}$  unless otherwise noted )

Fig. 1 – Forward Current Derating Curve

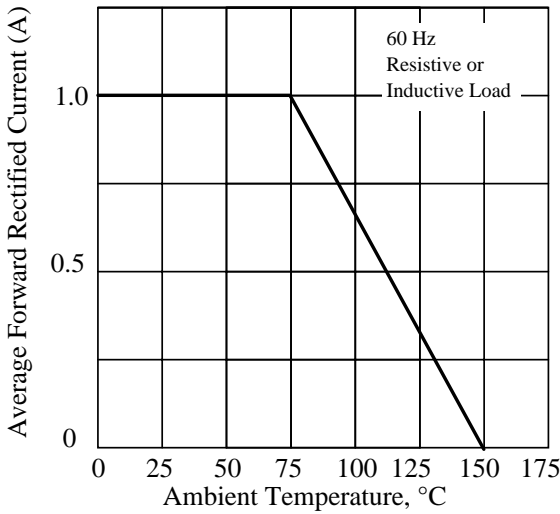


Fig. 2 – Maximum Non-repetitive Peak Forward Surge Current

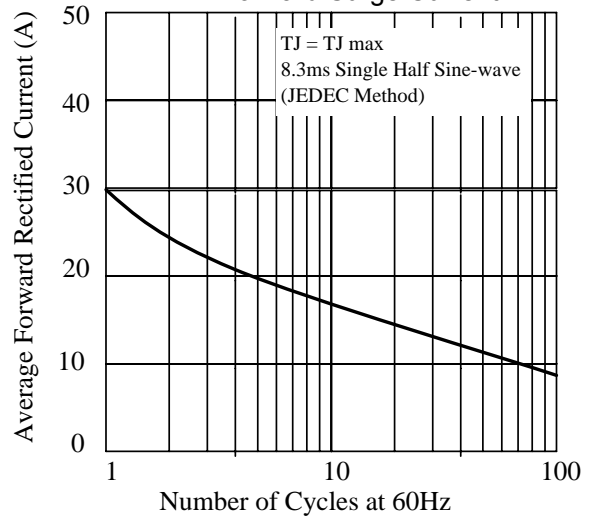


Fig 3. – Typical Instantaneous Forward Characteristics

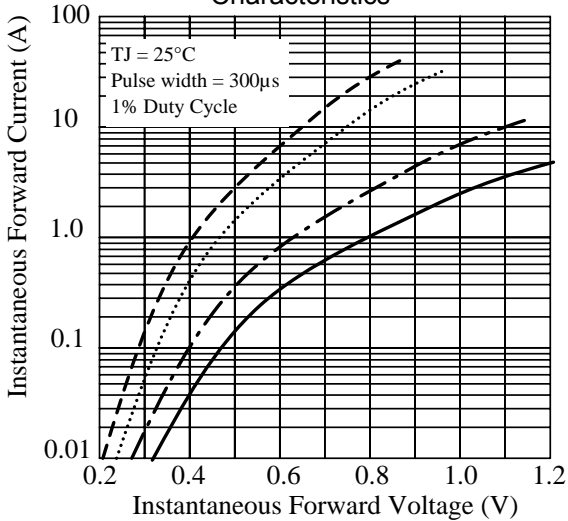


Fig 4. – Typical Reverse Characteristics

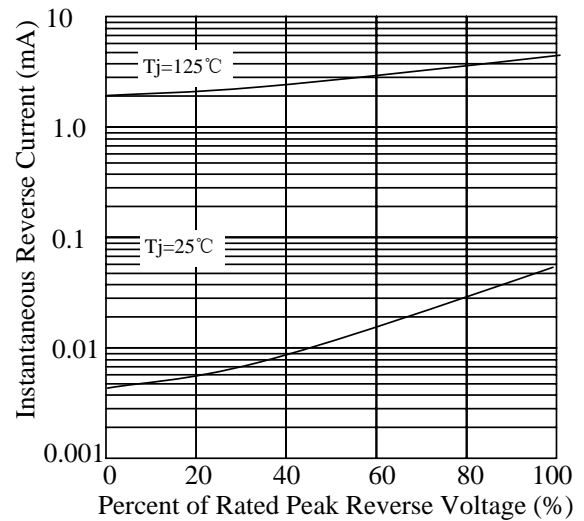


Fig 5. – Typical Junction Capacitance

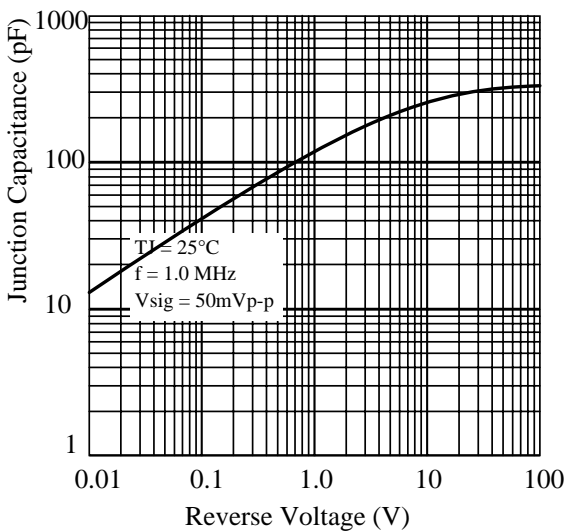
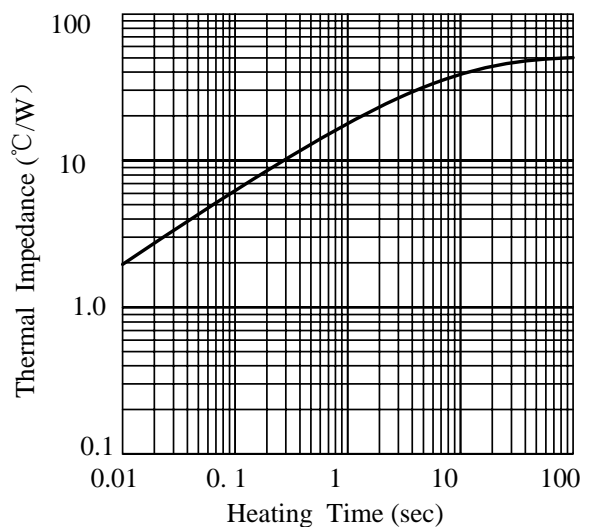
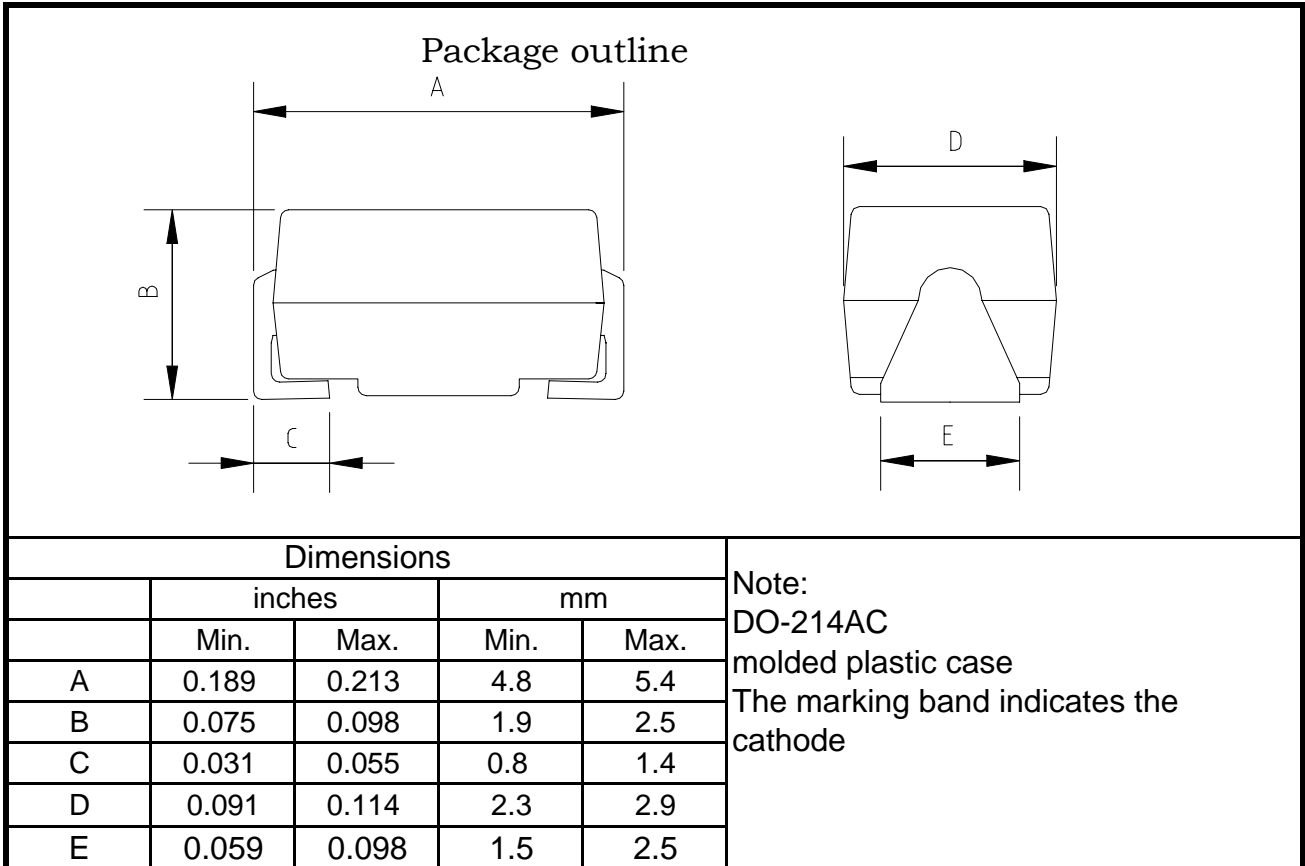


Fig 6. – Transient Thermal Impedance

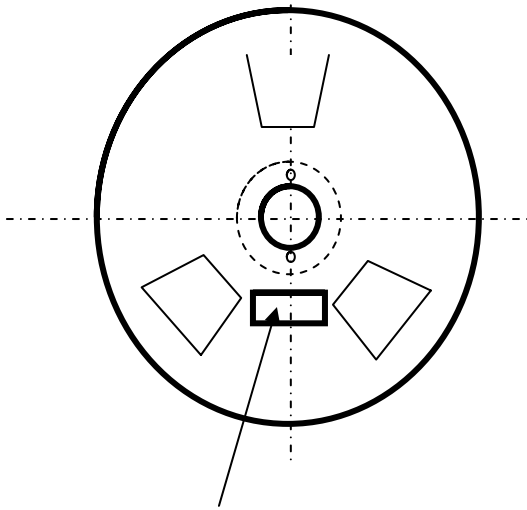


**5.Package Dimensions in inches and (millimeters)**


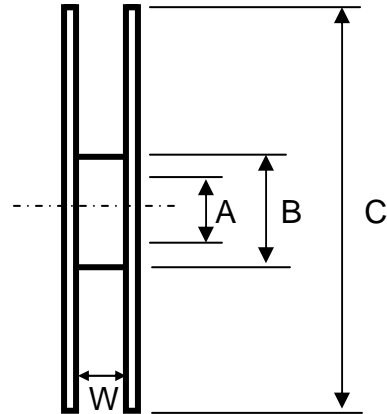
## SMA Packing Specification

### 1. 卷盘规格/Reel Packing

Unit:mm



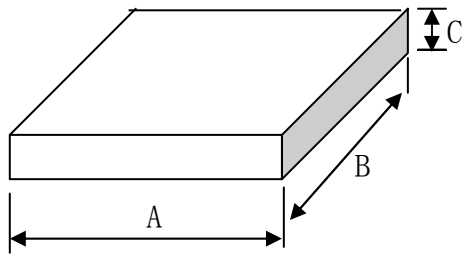
Label stike this position



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

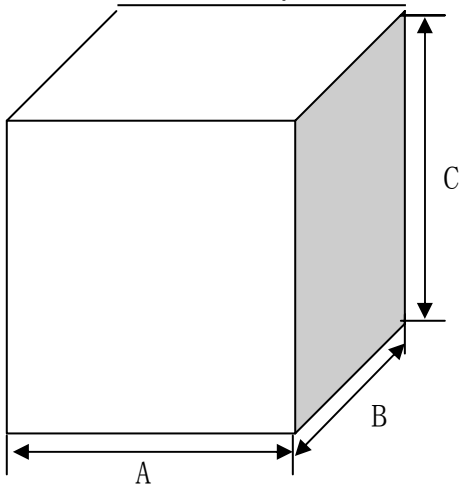
Item	Symbol	Dimension
13" Size	A	13.0±0.2
	B	75.0±0.5
	C	330±1.0
	W	13.2±1.0
7" Size	A	13.0±0.2
	B	54±0.5
	C	177±1.0
	W	13.2±1.0

### 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