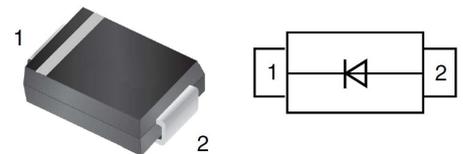


## Schottky Barrier Rectifier in DO-214AC/SMA

### Features

- Schottky barrier diodes
- Low forward voltage drop
- High Junction Temperature



### Mechanical Data

- **Case:** JEDEC DO-214AC(SMA)molded plastic  
Lead free; RoHS compliant
- **Molding Compound Flammability Rating:**  
UL 94 V-0
- **Terminals:** High temperature soldering guaranteed:  
260 °C/10 sec. at terminals

Absolute Maximum Ratings							
Ratings at 25 °C, ambient temperature unless otherwise specified							
Parameter	Symbol	SK12	SK13	SK14	SK16	SK110	Unit
Maximum repetitive peak reverse voltage	$V_{RRM}$	20	30	40	60	100	V
Maximum RMS voltage	$V_{RMS}$	14	21	28	42	70	V
Maximum DC blocking voltage	$V_{DC}$	20	30	40	60	100	V
Maximum average forward rectified current	$I_{F(AV)}$	1.0					A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	$I_{FSM}$	30					A
Operating junction and storage temperature range	$T_J, T_{STG}$	- 55 to + 150					°C

Electrical Characteristics								
(T <sub>A</sub> = 25 °C unless otherwise specified)								
Parameter	Test Conditions	Symbol	SK12	SK13	SK14	SK16	SK110	Unit
Maximum instantaneous forward voltage	$I_F=3A, T_A=25^{\circ}C$	$V_F$	0.55			0.70	0.85	V
Maximum DC reverse current at rated DC blocking voltage	$T_A=25^{\circ}C$	$I_R$	0.5				20	mA
	$T_A=125^{\circ}C$		50					
Typical junction capacitance	4.0 V, 1 MHz	$C_J$	110			80		pF

Thermal Characteristics							
Parameter	Symbol	SK12	SK13	SK14	SK16	SK110	Unit
Typical thermal resistance <sup>(1)</sup>	$R_{\theta JA}$	90					°C/W
	$R_{\theta JC}$	60					
	$R_{\theta JI}$	20					

Note1: Thermal resistance from junction to lead, mounted on PCB with 5.0x5.0mm copper pads

**Typical Characteristics** ( $T_{amb} = 25\text{ }^{\circ}\text{C}$  unless otherwise specified)

Figure 1. Forward Current Derating Curve

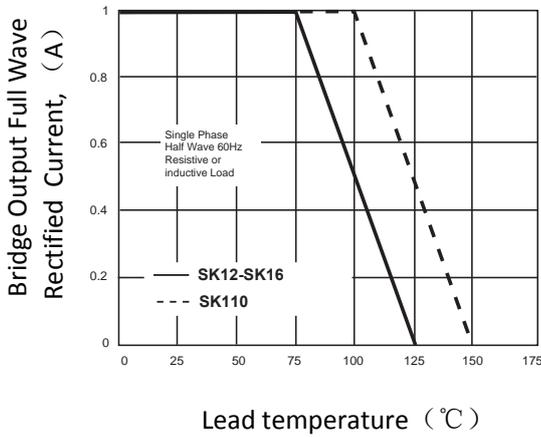


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

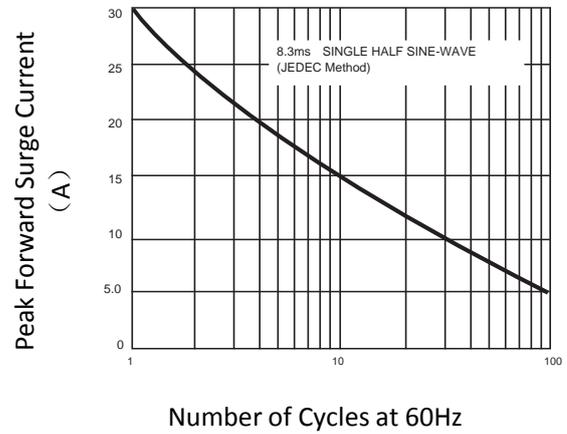


Figure 3. Typical Instantaneous Forward Characteristics

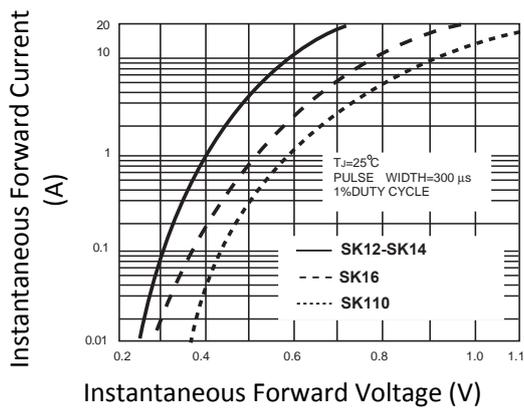


Figure 4. Typical Reverse Characteristics

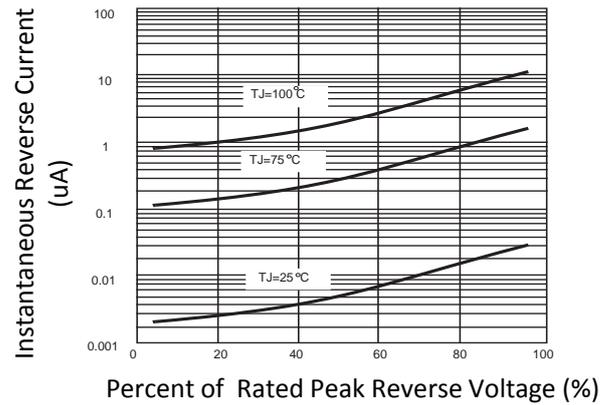
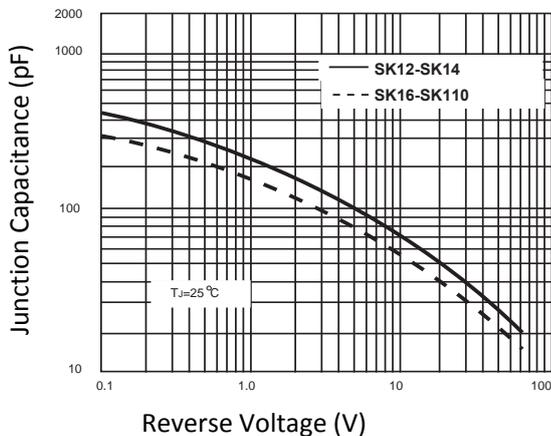
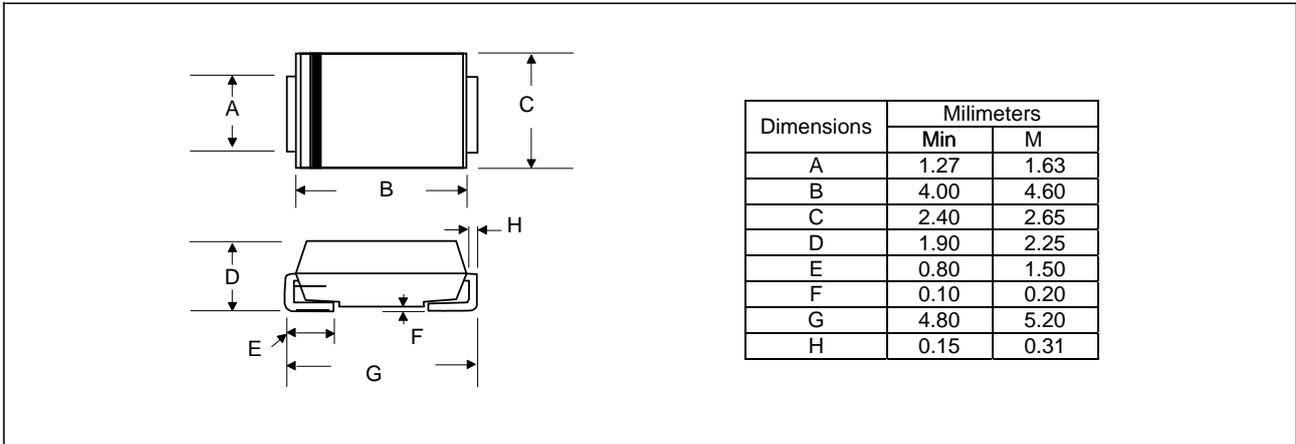


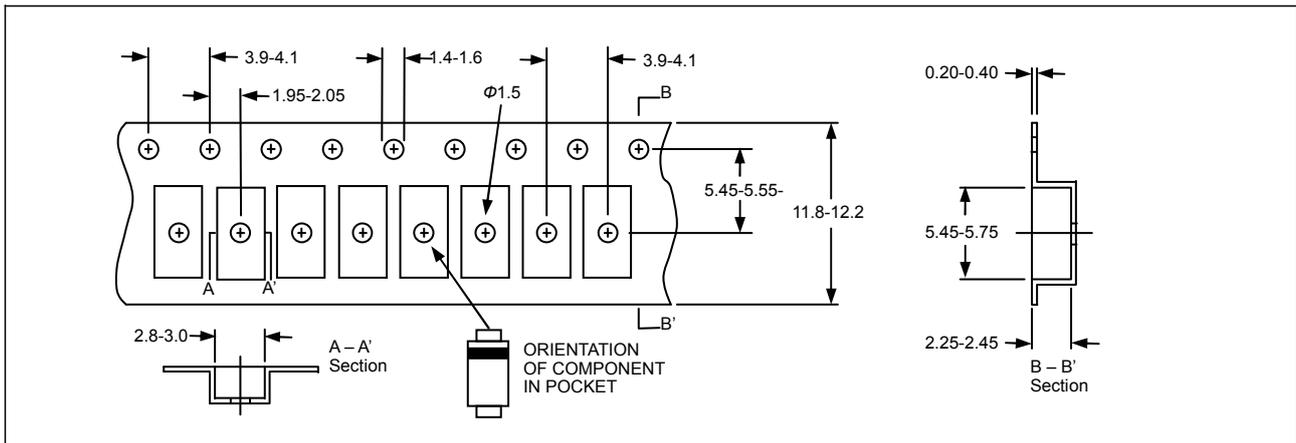
Figure 5. Typical Junction Capacitance



## Package Dimensions



## Package Information



## Ordering information

Order code	Package	Packaging option	Base quantity	Packaging specification
SK12 Thur SK110	DO-214AC/SMA	Tape and reel	5000pcs / reel	EIA STD RS-481

## Revision history

Date	Revision	Changes
23-May-2012	1.0	Initial release

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