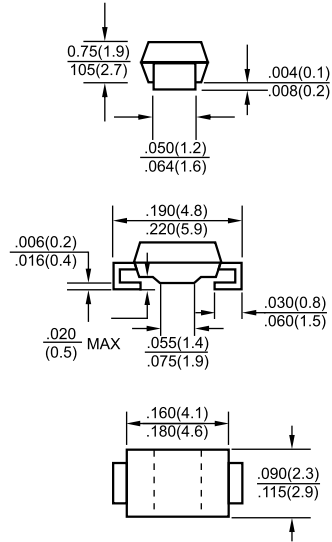




### SMA/DO-214AC



Dimensions in inches and (millimeters)

## Features

- ✦ For surface mounted application
- ✦ Metal to silicon rectifier, majority carrier conduction
- ✦ Low forward voltage drop
- ✦ Easy pick and place
- ✦ High surge current capability
- ✦ Plastic material used carriers Underwriters Laboratory Classification 94V-0
- ✦ Epitaxial construction
- ✦ High temperature soldering: 260°C / 10 seconds at terminals

## Mechanical Data

- ✦ Case: Molded plastic
- ✦ Terminals: Pure tin plated, lead free.
- ✦ Polarity: Indicated by cathode band
- ✦ Packaging: 12mm tape
- ✦ Weight: 0.064gram

## Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%

Type Number	Symbol	SK 22A	SK 23A	SK 24A	SK 25A	SK 26A	SK 29A	SK 210A	SK 215A	Units
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	20	30	40	50	60	90	100	150	V
Maximum RMS Voltage	$V_{RMS}$	14	21	28	35	42	63	70	105	V
Maximum DC Blocking Voltage	$V_{DC}$	20	30	40	50	60	90	100	150	V
Maximum Average Forward Rectified Current at $T_L$ (See Fig. 1)	$I_{(AV)}$	2.0								A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method )	$I_{FSM}$	50								A
Maximum Instantaneous Forward Voltage (Note 1) @ 2.0A	$V_F$	0.5		0.7		0.85		0.95		V
Maximum DC Reverse Current @ $T_A=25^\circ C$ at Rated DC Blocking Voltage @ $T_A=125^\circ C$	$I_R$	0.5				0.1		mA		
		10		5.0		2.0		mA		
Non-repetitive Peak Reverse Avalanche Energy $L=40mH$ $T_j=25^\circ C$ max prior to Surge, Inductive load Switched off	$E_{RSM}$	20								mJ
Typical Junction Capacitance	$C_j$	10				50				pF
Typical Thermal Resistance ( Note 2 )	$R_{\theta JA}$	88								°C/W
Operating Temperature Range	$T_J$	-65 to +125				-65 to +150				°C
Storage Temperature Range	$T_{STG}$	-65 to +150								°C

- Notes:
1. Pulse Test with PW=300 usec, 1% Duty Cycle
  2. Measured on P.C.Board with 0.2" x 0.2"(5.0mm x 5.0mm) Copper Pad Areas.

### RATINGS AND CHARACTERISTIC CURVES (SK22A THRU SK215A)

FIG. 1- MAXIMUM FORWARD CURRENT DERATING CURVE

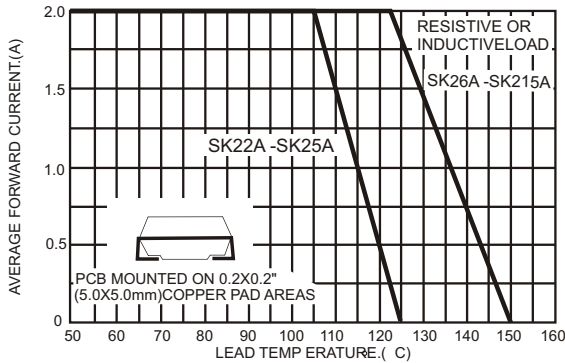


FIG. 2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

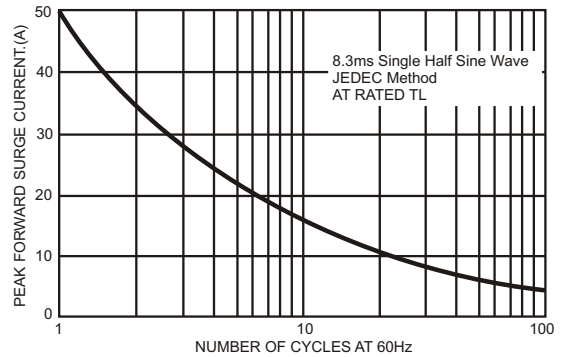


FIG. 3- TYPICAL FORWARD CHARACTERISTICS

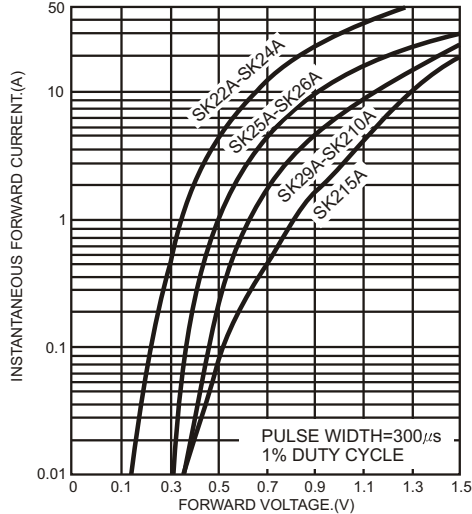


FIG. 4- TYPICAL REVERSE CHARACTERISTICS

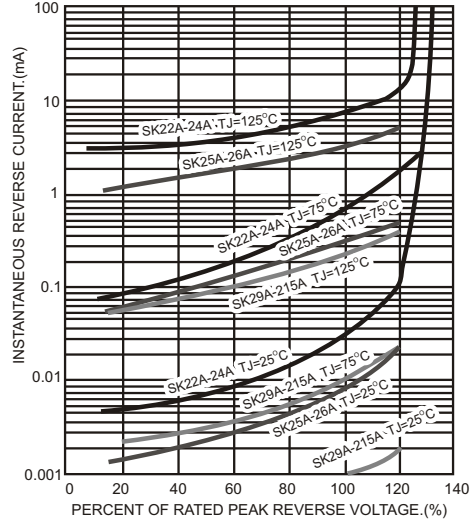


FIG. 5- TYPICAL JUNCTION CAPACITANCE

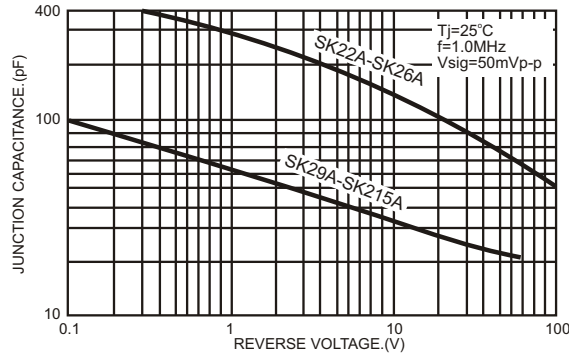


FIG. 6- TYPICAL TRANSIENT THERMAL CHARACTERISTICS

