

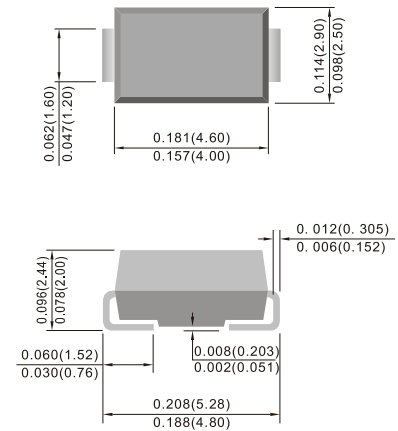
■ Features

- Glass passivated chip junction
- Ideal for automated placement
- Low forward voltage drop
- High surge current capability
- Compliant to RoHS Directive 2011/65/EU and in accordance to WEEE 2002/96/EC
- Halogen-free according to IEC 61249-2-21 definition

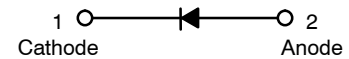
■ MECHANICAL DATA

- Package: DO-214AC (SMA)
- Terminals: Matte tin plated leads, solderable per JESD22-B102 Meet JESD 201 class 2 whisker test
- Polarity: Indicated by cathode band

DO-214AC (SMA)



Unit : inch(mm)



■ Maximum Ratings (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	S1A	S1B	S1D	S1G	S1J	S1K	S1M	UNIT	
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	V	
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	V	
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	V	
Maximum average forward rectified current	$I_{F(AV)}$	1							A	
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I_{FSM}	30							A	
Maximum instantaneous forward voltage@1A (Note 1)	V_F	1.1							V	
Maximum reverse current @ rated V_R	I_R	$T_J=25^\circ\text{C}$							1	μA
		$T_J=125^\circ\text{C}$							50	
Typical reverse recovery time (Note 2)	t_{rr}	1.5							μs	
Typical junction capacitance (Note 3)	C_J	12							pF	
Non-repetitive peak reverse avalanche energy at 25°C, $I_{AS}=1\text{A}$, $L=10\text{mH}$	E_{RSM}	5							mJ	
Typical thermal resistance	$R_{\theta JL}$	27							30	$^\circ\text{C/W}$
	$R_{\theta JA}$	75								
Operating junction temperature range	T_J	- 55 to +175							$^\circ\text{C}$	
Storage temperature range	T_{STG}	- 55 to +175							$^\circ\text{C}$	

Note 1: Pulse test with $PW=300\mu\text{s}$, 1% duty cycle

Note 2: Reverse Recovery Test Conditions: $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{RR}=0.25\text{A}$

Note 3: Measured at 1 MHz and Applied Reverse Voltage of 4.0V D.C.

■ **RATINGS AND CHARACTERISTICS CURVES** ($T_A=25^\circ\text{C}$ unless otherwise noted)

FIG.1 FORWARD CURRENT DERATING CURVE

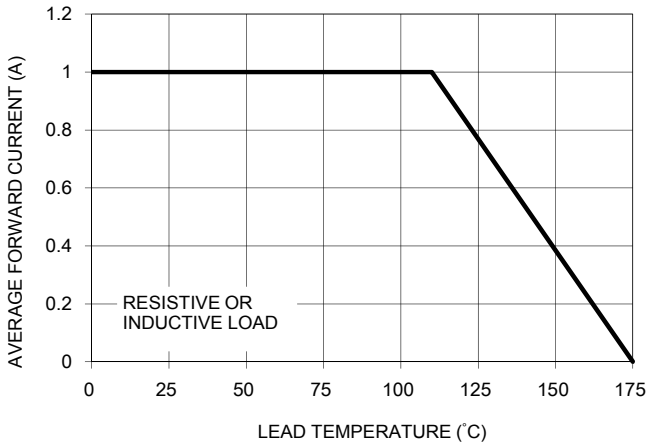


FIG. 2 TYPICAL REVERSE CHARACTERISTICS

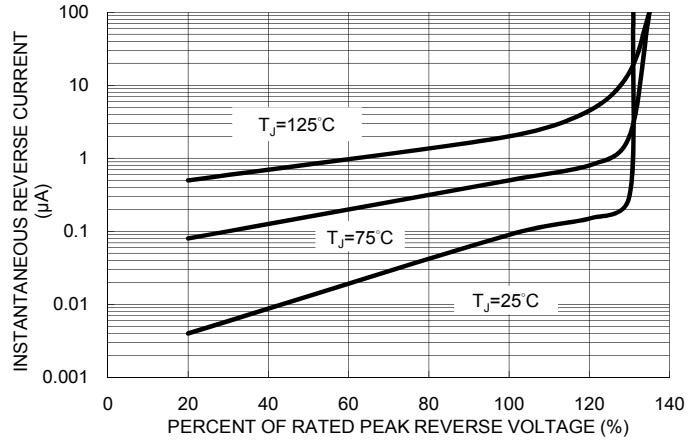


FIG. 3 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

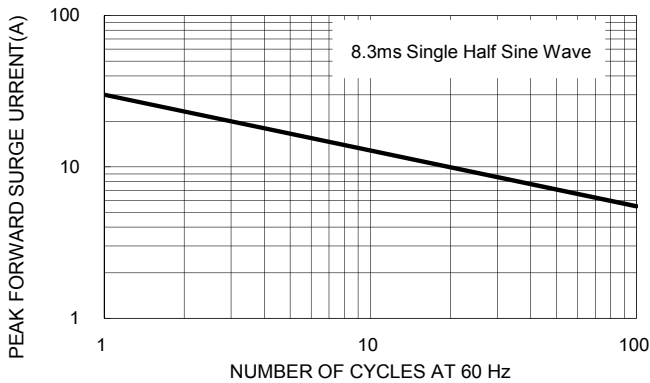


FIG. 4 TYPICAL FORWARD CHARACTERISTICS

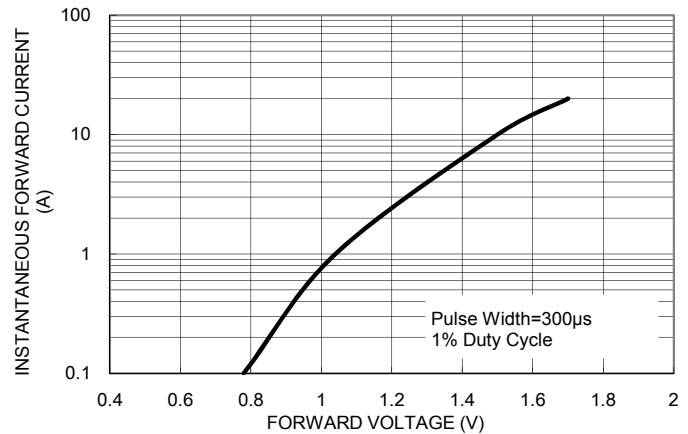


FIG. 5 TYPICAL JUNCTION CAPACITANCE

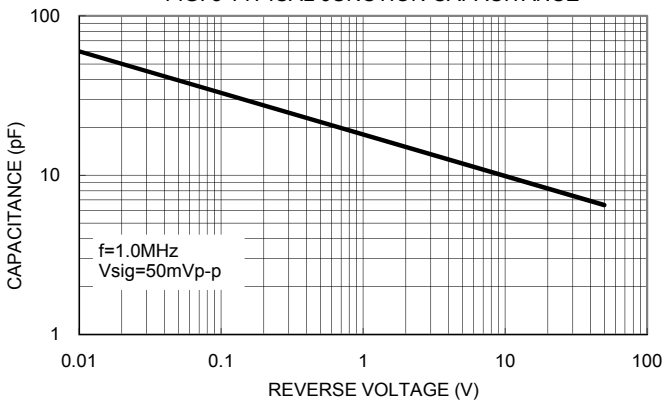


FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

