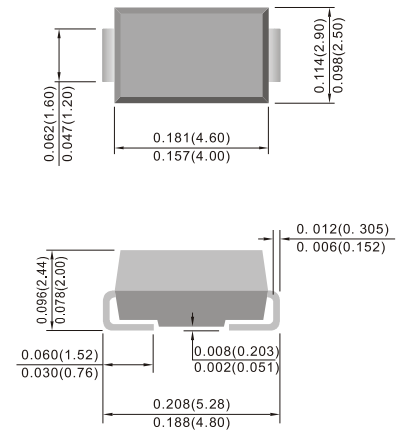


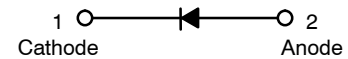
## ■ Features

- 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

## DO-214AC (SMA)



Unit : inch(mm)



## ■ 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

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

PARAMETER	SYMBOL	1N4001	1N4002	1N4003	1N4004	1N4005	1N4006	1N4007	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 $V_R$	$I_R$	1 50							$\mu A$
Typical reverse recovery time (Note 2)	$t_{rr}$	1.5							$\mu s$
Typical junction capacitance (Note 3)	$C_J$	12							pF
Non-repetitive peak reverse avalanche energy at 25°C, $I_{AS}=1A$ , $L=10mH$	$E_{RSM}$	5							mJ
Typical thermal resistance	$R_{\theta JL}$ $R_{\theta JA}$	27 75					30 85		$^{\circ}C/W$
Operating junction temperature range	$T_J$	- 55 to +175							$^{\circ}C$
Storage temperature range	$T_{STG}$	- 55 to +175							$^{\circ}C$

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

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

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

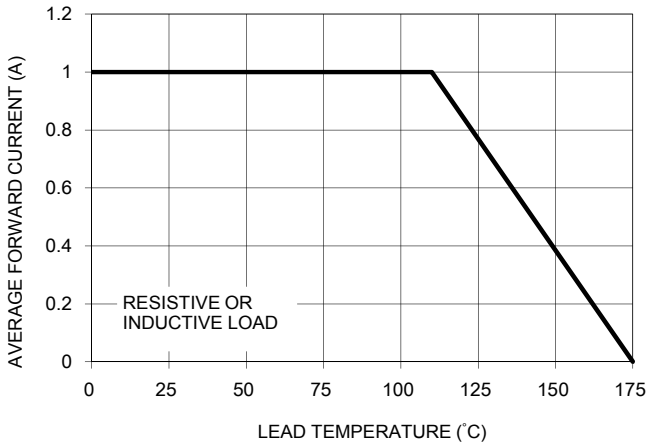


FIG. 2 TYPICAL REVERSE CHARACTERISTICS

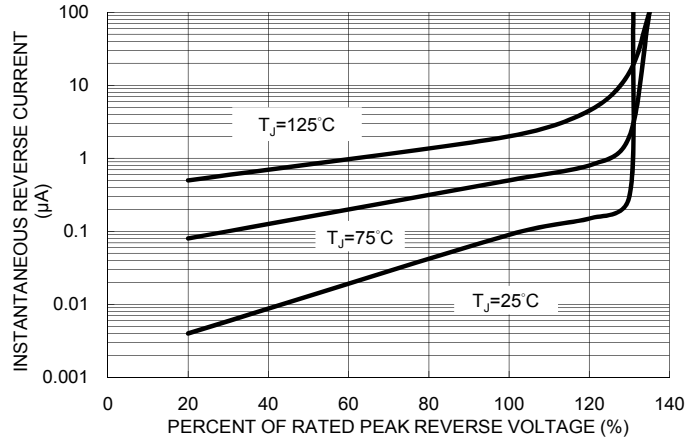


FIG. 3 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



FIG. 4 TYPICAL FORWARD CHARACTERISTICS

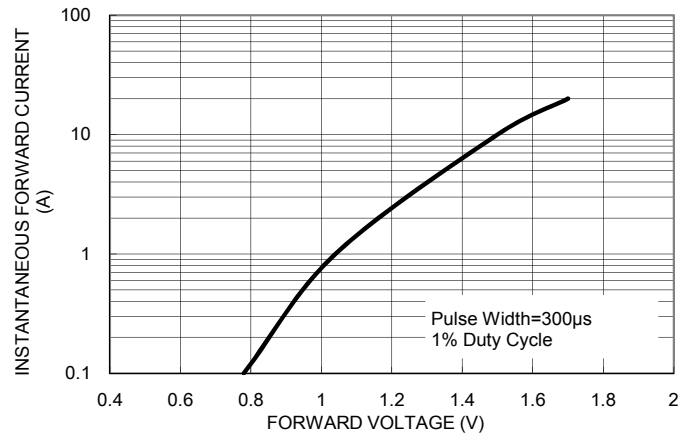


FIG. 5 TYPICAL JUNCTION CAPACITANCE

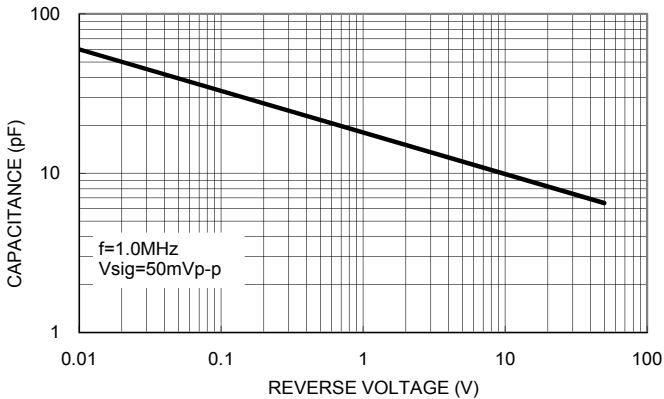


FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

