

Surface Mount Rectifier Diode

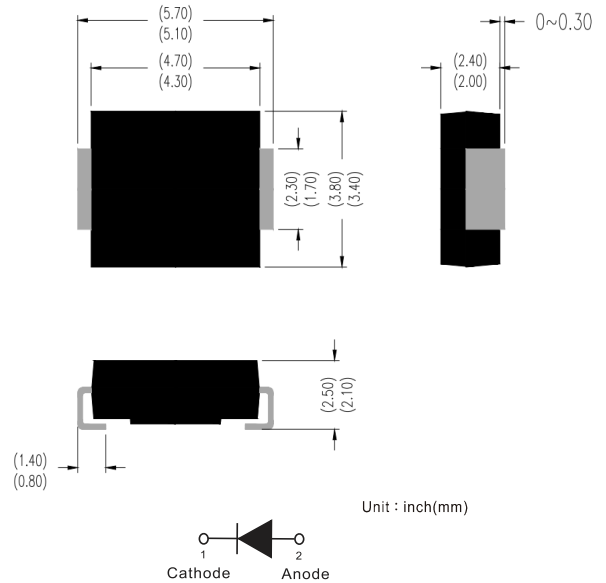
Features

- Glass passivated junction chip
- Ideal for automated placement
- Low forward voltage drop
- High surge current capability
- AEC-Q101 qualified
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260 °C

Mechanical Data

- **Package:** DO-214AA (SMB)
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant, halogen-free
- **Polarity:** Cathode line denotes the cathode end
- **Terminals:** Tin plated leads, solderable per STD-002 and JESD22-B102

DO-214AA (SMB)



Absolute Maximum Ratings ($T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Unit	S2ABQ	S2BBQ	S2DBQ	S2GBQ	S2JBQ	S2KBQ	S2MBQ
Repetitive peak reverse voltage	V_{RRM}	V	50	100	200	400	600	800	1000
Maximum RMS voltage	V_{RMS}	V	35	70	140	280	420	560	700
Maximum DC blocking voltage	V_{DC}	V	50	100	200	400	600	800	1000
Average rectified output current @60Hz sine wave, resistance load, T_L (FIG1)	I_O	A	2.0						
Surge(non-repetitive)forward current @60Hz half-sine wave, 1 cycle, $T_a=25^\circ\text{C}$	I_{FSM}	A	50						
Storage temperature	T_{stg}	$^\circ\text{C}$	-55~+150						
Junction temperature	T_J	$^\circ\text{C}$	-55~+150						

Electrical Characteristics ($T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Unit	Test Conditions	S2ABQ	S2BBQ	S2DBQ	S2GBQ	S2JBQ	S2KBQ	S2MBQ
Maximum instantaneous forward voltage drop per diode	V_F	V	$I_{FM}=2.0\text{A}$	1.15						
Typical junction capacitance	C_J	pF	$V_R=4\text{V}, f=1\text{ MHz}$	18						
Maximum DC reverse current at rated DC blocking voltage per diode @ $V_{RM}=V_{RRM}$	I_{RRM}	μA	$T_a=25^\circ\text{C}$	5						
			$T_a=125^\circ\text{C}$	100						

Thermal Characteristics ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

Parameter	Symbol	Unit	S2ABQ	S2BBQ	S2DBQ	S2GBQ	S2JBQ	S2KBQ	S2MBQ
Thermal resistance	$R_{\theta J-A}$	$^{\circ}\text{C/W}$	75 ⁽¹⁾						
	$R_{\theta J-L}$		20 ⁽¹⁾						

Note:

(1) Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.27" x 0.27" (7.0 mm x 7.0 mm) copper pad areas

Characteristics (Typical)

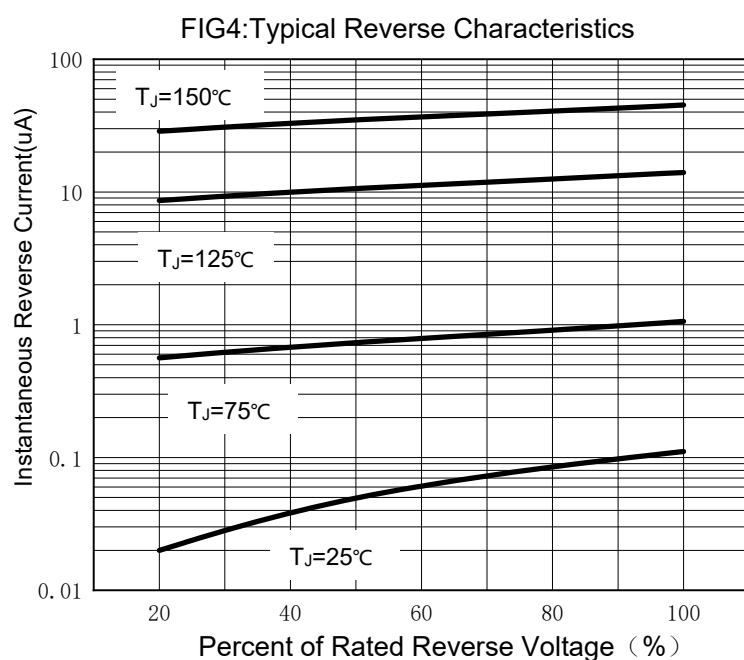
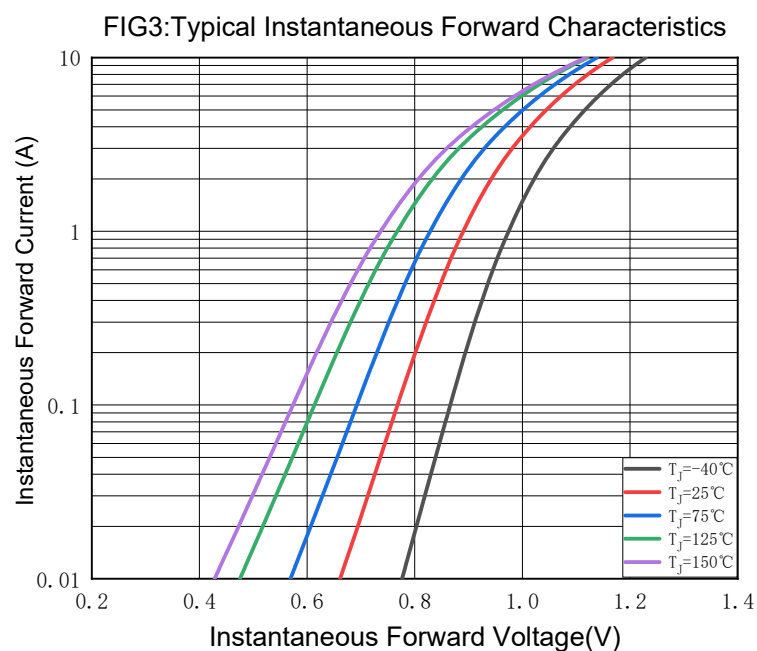
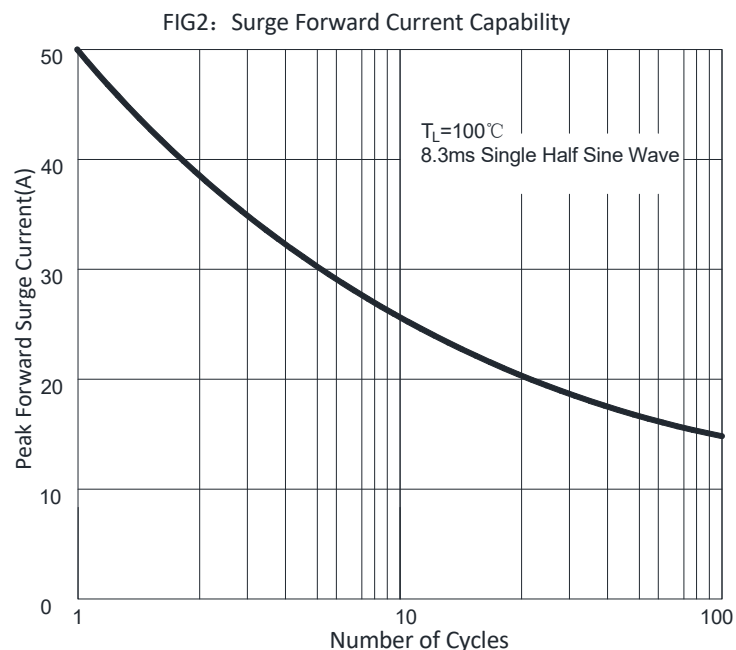
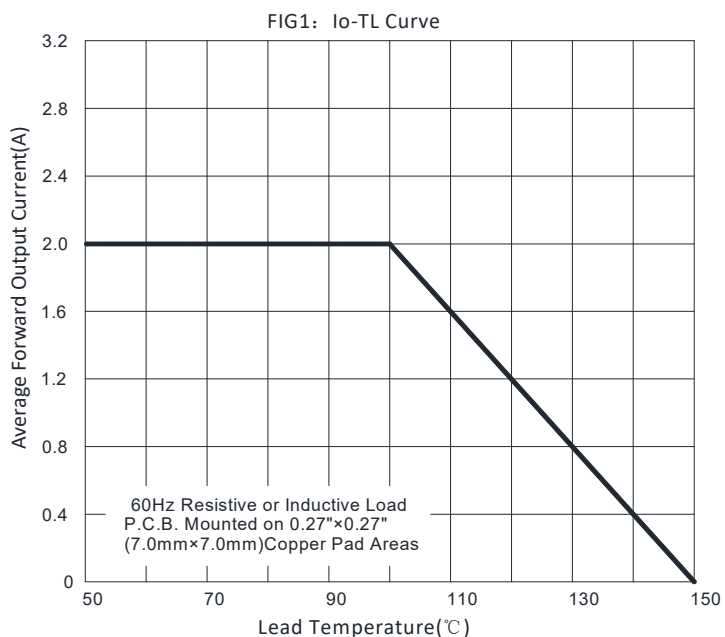


FIG.5: Diagram of circuit and Testing wave form of reverse recovery time

