



## Surface Mount Glass Passivated Rectifier

### DO-214AB (SMC)

#### Features

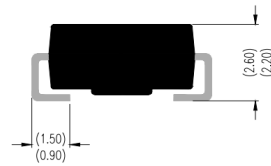
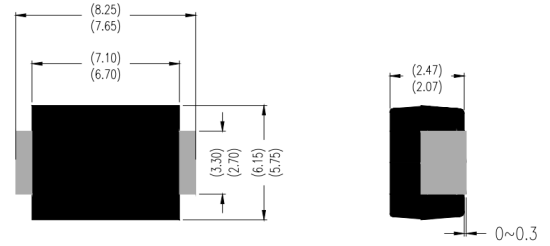
- Low profile package
- Ideal for automated placement
- Glass passivated chip junction
- High forward surge capability
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260 °C

#### Typical Applications

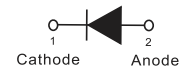
For use in general purpose rectification of power supplies, inverters, converters, and freewheeling diodes for consumer, and telecommunication.

#### Mechanical Data

- Package: DO-214AB (SMC)
- Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant, halogen-free
- Terminals: Tin plated leads, solderable per J-STD-002 and JESD22-B102
- Polarity: Color band denotes the cathode end



Unit : inch(mm)



#### ■Maximum Ratings (T<sub>a</sub>=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	S10A	S10B	S10D	S10G	S10J	S10K	S10M		
Maximum Repetitive peak reverse voltage	V <sub>RRM</sub>	V	50	100	200	400	600	800	1000		
Maximum RMS Voltage	V <sub>RMS</sub>	V	35	70	140	280	420	560	700		
Maximum DC Blocking Voltage	V <sub>DC</sub>	V	50	100	200	400	600	800	1000		
Average Rectified Output Current @60Hz sine wave, Resistance load, TL (FIG.1)	I <sub>O</sub>	A	10								
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave, 1 cycle, T <sub>j</sub> =25°C	I <sub>FSM</sub>	A	200								
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, T <sub>j</sub> =25°C			400								
Current squared time @1ms≤t≤8.3ms T <sub>j</sub> =25°C, Rating of per diode	I <sup>2</sup> t	A <sup>2</sup> s	166								
Typical junction capacitance @Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C	C <sub>j</sub>	pF	55								
Storage Temperature	T <sub>stg</sub>	°C	-55 ~ +150								
Junction Temperature	T <sub>j</sub>	°C	-55 ~ +150								



■ **Electrical Characteristics** (T<sub>a</sub>=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	S10A	S10B	S10D	S10G	S10J	S10K	S10M	
Maximum instantaneous forward voltage drop per diode	V <sub>F</sub>	V	I <sub>FM</sub> =10A								1.1
Maximum DC reverse current at rated DC blocking voltage per diode	I <sub>R</sub>	μA	T <sub>j</sub> =25°C								5
			T <sub>j</sub> =125°C								100

■ **Thermal Characteristics** (T<sub>a</sub>=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	S10A	S10B	S10D	S10G	S10J	S10K	S10M	
Typical Thermal resistance	R <sub>θJ-A</sub> (1)	°C/W								50
	R <sub>θJ-L</sub> (1)									10
	R <sub>θJ-C</sub> (1)									8

Note(1)

Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.6" x 0.6" (16 mm x 16 mm) copper pad areas

■ **Characteristics(Typical)**

FIG.1: I<sub>o</sub>-T<sub>L</sub> Curve

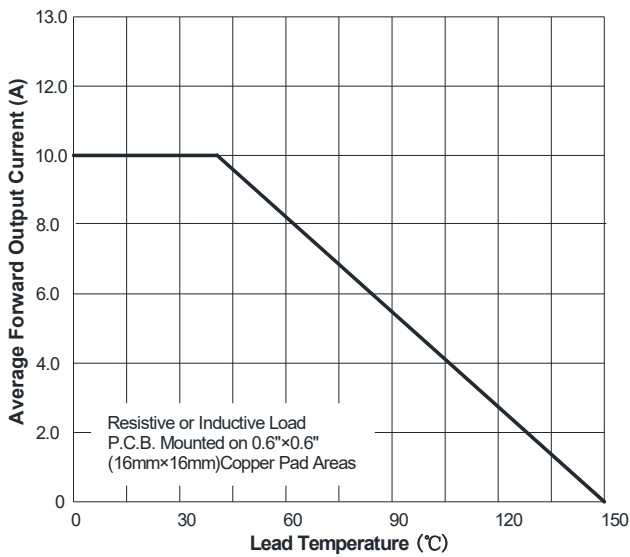


FIG.2: Forward Surge Current Capability

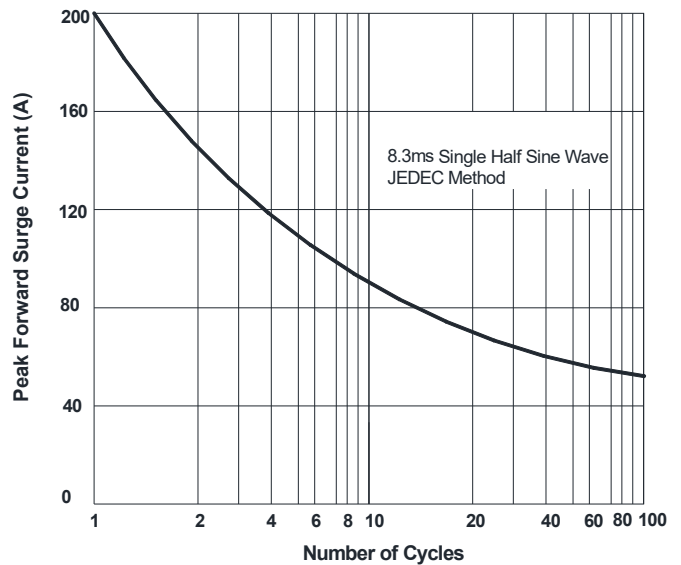


FIG.3: Typical Forward Voltage

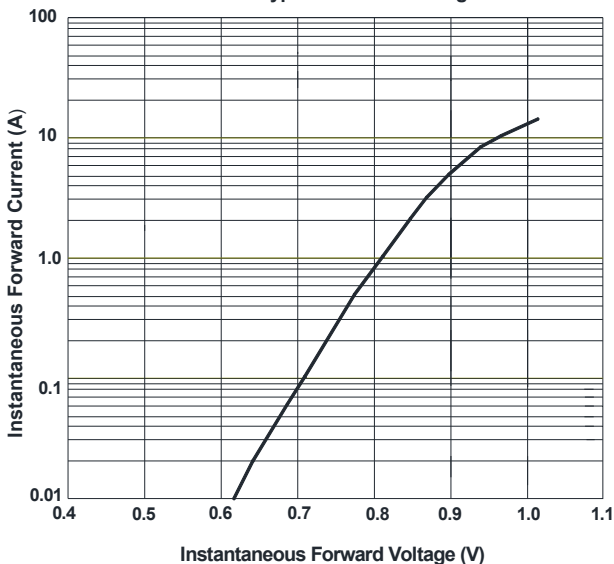


FIG.4: Typical Reverse Characteristics

