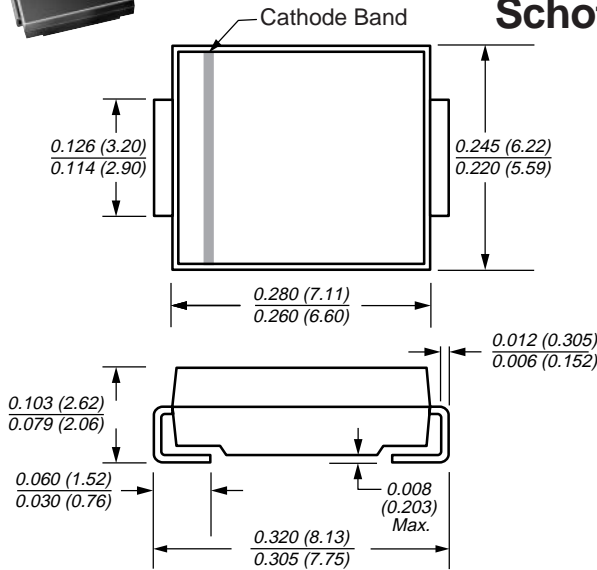




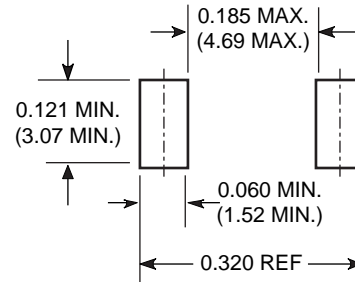
DO-214AB (SMC)

## Low V<sub>F</sub> Surface Mount Schottky Rectifier

Reverse Voltage 20 to 40V  
Forward Current 4.0A



### Mounting Pad Layout DO-214AB



### Mechanical Data

**Case:** JEDEC DO-214AB molded plastic body  
**Terminals:** solder plated, solderable per MIL-STD-750, Method 2026  
**Polarity:** Color band denotes cathode end  
**Weight:** 0.007 oz. 0.25 g

### Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Low profile surface mount package
- Built-in strain relief
- Low power loss, high efficiency
- For use in low voltage high frequency inverters, free wheeling, and polarity protection applications
- Guardring for overvoltage protection
- High temperature soldering guaranteed: 250°C/10 seconds at terminals

### Maximum Ratings and Thermal Characteristics (T<sub>A</sub> = 25°C unless otherwise noted)

Parameter	Symbols	SL42	SL43	SL44	Units
Device marking code		SL2	SL3	SL4	
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	20	30	40	V
Maximum RMS voltage	V <sub>RMS</sub>	14	21	28	V
Maximum DC blocking voltage	V <sub>DC</sub>	20	30	40	V
Maximum average forward rectified current <sup>(2)</sup> at T <sub>L</sub> (see fig. 1)	I <sub>F(AV)</sub>	4.0 8.0			A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	150			A
Typical thermal resistance <sup>(2)</sup>	R <sub>θJA</sub> R <sub>θJL</sub>	50 14			°C/W
Operating junction temperature range	T <sub>J</sub>	-55 to +125			°C
Storage temperature range	T <sub>STG</sub>	-55 to 150			°C

### Electrical Characteristics (T<sub>A</sub> = 25°C unless otherwise noted)

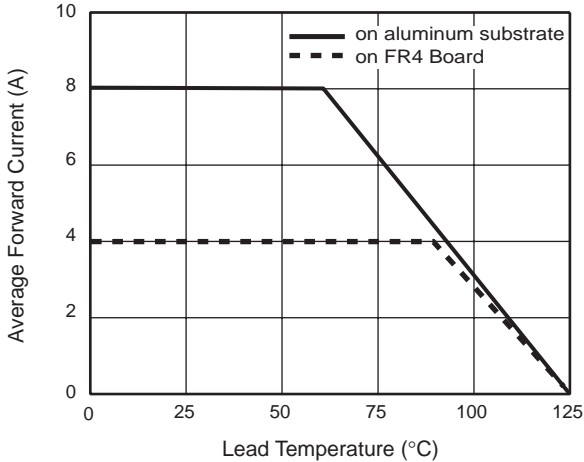
Maximum instantaneous forward voltage at <sup>(1)</sup>	I <sub>F</sub> =4.0A, T <sub>A</sub> =125°C I <sub>F</sub> =4.0A, T <sub>A</sub> =25°C I <sub>F</sub> =8.0A, T <sub>A</sub> =125°C I <sub>F</sub> =8.0A, T <sub>A</sub> =25°C	V <sub>F</sub>	0.31 0.42 0.37 0.47	0.35 0.44 0.41 0.50	V
Maximum DC reverse current (NOTE 1) at rated DC blocking voltage	T <sub>A</sub> =25°C T <sub>A</sub> =100°C	I <sub>R</sub>	0.5 35		mA

**Notes:**

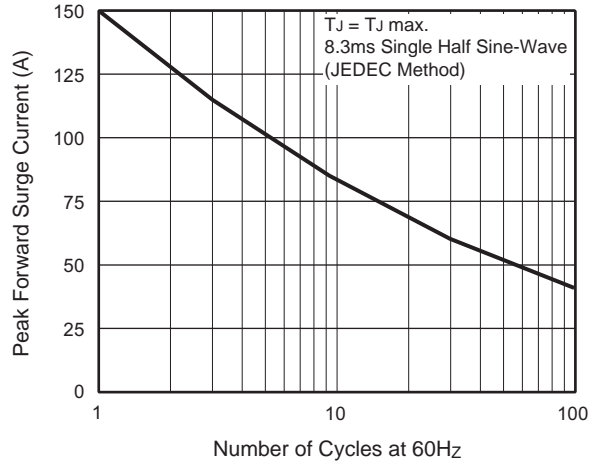
- (1) Pulse test: 300µs pulse width, 1% duty cycle,
- (2) P.C.B. mounted 0.55 x 0.55" (14 x 14mm) copper pad areas, T<sub>L</sub>=90°C
- (3) Mounted on Al plate, T<sub>L</sub>=60°C

## Ratings and Characteristic Curves ( $T_A = 25^\circ\text{C}$ unless otherwise noted)

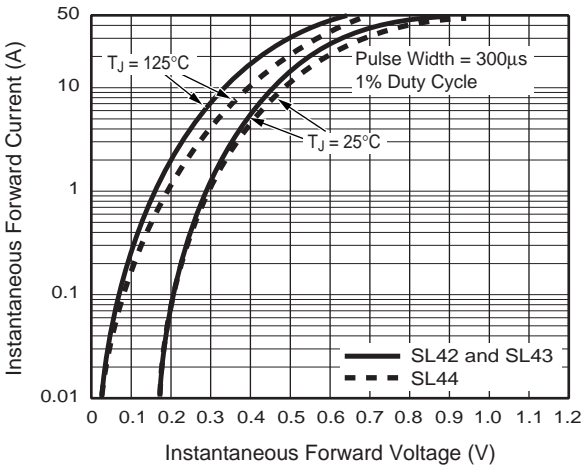
**Fig. 1 – Forward Current Derating Curve**



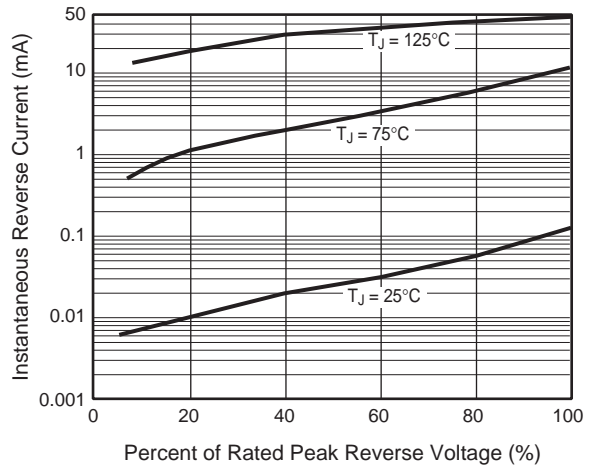
**Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current**



**Fig. 3 – Typical Instantaneous Forward Characteristics**



**Fig. 4 – Typical Reverse Characteristics**



**Fig. 5 – Typical Junction Capacitance**

