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Jameco Part Number 2026669

## Surface Mount Schottky Barrier Rectifier


**DO-214AB (SMC)**

PRIMARY CHARACTERISTICS	
$I_{F(AV)}$	4.0 A
$V_{RRM}$	20 V to 40 V
$I_{FSM}$	150 A
$V_F$	0.31 V, 0.35 V
$T_J$ max.	125 °C

### FEATURES

- Low profile package
- Ideal for automated placement
- Guardring for overvoltage protection
- Low power losses, high efficiency
- Very low forward voltage drop
- High surge capability
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260 °C
- Solder dip 260 °C, 40 s
- Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC


**RoHS**  
COMPLIANT

### TYPICAL APPLICATIONS

For use in low voltage high frequency inverters, freewheeling, dc-to-dc converters, and polarity protection applications.

### MECHANICAL DATA

**Case:** DO-214AB (SMC)

Epoxy meets UL 94V-0 flammability rating

**Terminals:** Matte tin plated leads, solderable per J-STD-002 and JESD22-B102

E3 suffix for consumer grade, meets JESD 201 class 1A whisker test, HE3 suffix for high reliability grade (AEC Q101 qualified), meets JESD 201 class 2 whisker test

**Polarity:** Color band denotes the cathode end

MAXIMUM RATINGS ( $T_A = 25\text{ °C}$ unless otherwise noted)					
PARAMETER	SYMBOL	SL42	SL43	SL44	UNIT
Device marking code		SL2	SL3	SL4	
Maximum repetitive peak reverse voltage	$V_{RRM}$	20	30	40	V
Maximum RMS voltage	$V_{RMS}$	14	21	28	V
Maximum DC blocking voltage	$V_{DC}$	20	30	40	V
Maximum average forward rectified current <sup>(1)</sup> at $T_L$ (Fig. 1)	$I_{F(AV)}$	4.0 8.0			A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	$I_{FSM}$	150			A
Operating junction temperature range	$T_J$	- 55 to + 125			°C
Storage temperature range	$T_{STG}$	- 55 to + 150			°C

**Note:**

(1) P.C.B. mounted 0.55 x 0.55" (14 x 14 mm) copper pad areas,  $T_L = 90\text{ °C}$



ELECTRICAL CHARACTERISTICS (T <sub>A</sub> = 25 °C unless otherwise noted)							
PARAMETER	TEST CONDITIONS		SYMBOL	SL42	SL43	SL44	UNIT
Maximum instantaneous forward voltage at <sup>(1)</sup>	I <sub>F</sub> = 4.0 A	T <sub>A</sub> = 125 °C	V <sub>F</sub>	0.31	0.35	0.35	V
	I <sub>F</sub> = 4.0 A	T <sub>A</sub> = 25 °C					
	I <sub>F</sub> = 8.0 A	T <sub>A</sub> = 125 °C					
	I <sub>F</sub> = 8.0 A	T <sub>A</sub> = 25 °C					
Maximum DC reverse current at rated DC blocking voltage <sup>(1)</sup>			I <sub>R</sub>	0.5		35	mA
		T <sub>A</sub> = 25 °C					
		T <sub>A</sub> = 100 °C					

**Note:**

(1) Pulse test: 300 μs pulse width, 1 % duty cycle

THERMAL CHARACTERISTICS (T <sub>A</sub> = 25 °C unless otherwise noted)						
PARAMETER	SYMBOL	SL42	SL43	SL44	UNIT	
Typical thermal resistance <sup>(1)</sup>	R <sub>θJA</sub> R <sub>θJL</sub>	50		14		°C/W

**Note:**

(1) P.C.B. mounted 0.55 x 0.55" (14 x 14 mm) copper pad areas, T<sub>L</sub> = 90 °C

ORDERING INFORMATION (Example)					
PREFERRED P/N	UNIT WEIGHT (g)	PREFERRED PACKAGE CODE	BASE QUANTITY	DELIVERY MODE	
SL43-E3/57T	0.235	57T	850	7" diameter plastic tape and reel	
SL43-E3/9AT	0.235	9AT	3500	13" diameter plastic tape and reel	
SL43HE3/57T <sup>(1)</sup>	0.235	57T	850	7" diameter plastic tape and reel	
SL43HE3/9AT <sup>(1)</sup>	0.235	9AT	3500	13" diameter plastic tape and reel	

**Note:**

(1) Automotive grade AEC Q101 qualified

**RATINGS AND CHARACTERISTICS CURVES**

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

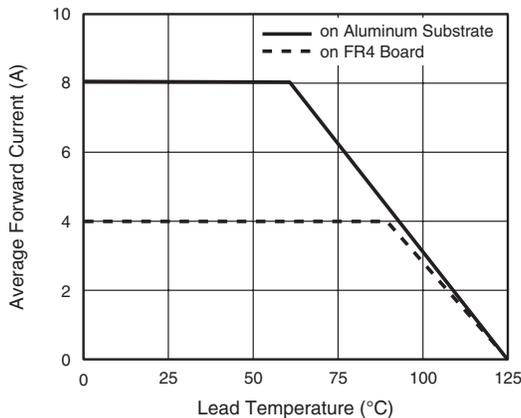


Figure 1. Forward Current Derating Curve

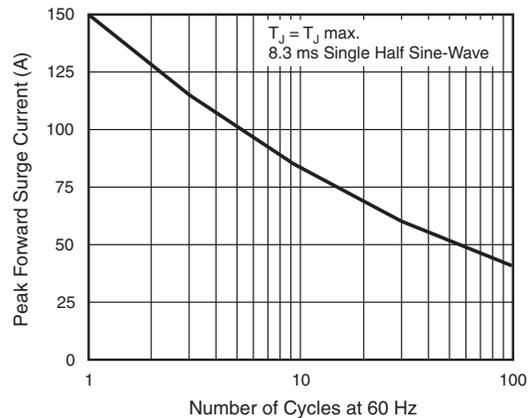


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

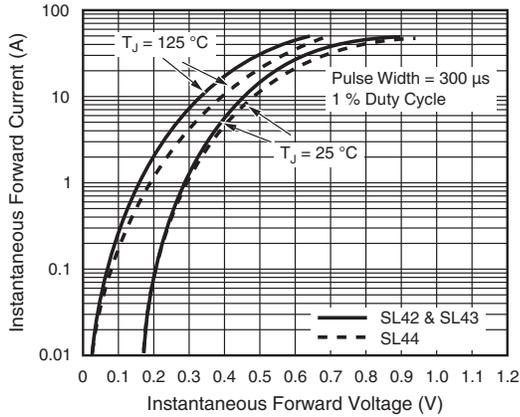


Figure 3. Typical Instantaneous Forward Characteristics

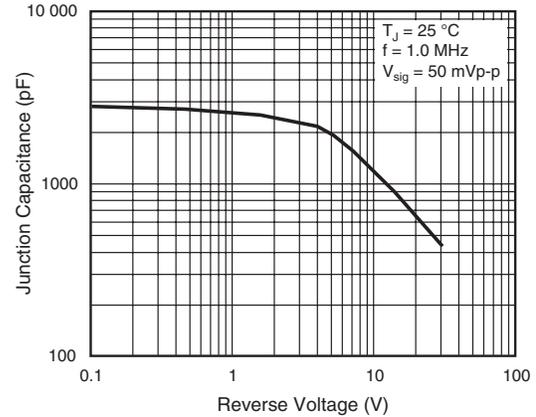


Figure 5. Typical Junction Capacitance

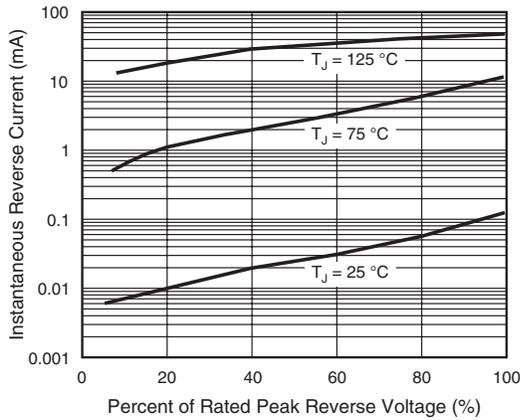
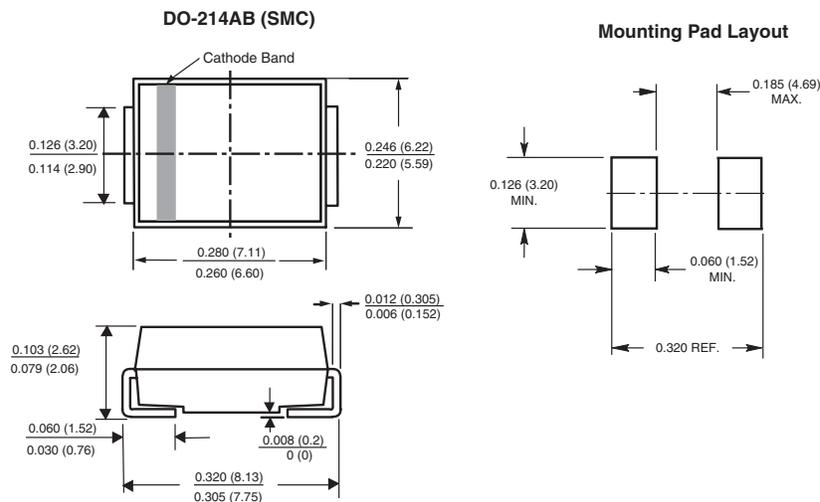


Figure 4. Typical Reverse Characteristics

### PACKAGE OUTLINE DIMENSIONS in inches (millimeters)





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