

## 3A, 20V - 40V Schottky Barrier Surface Mount Rectifier

### FEATURES

- Low power loss, high efficiency
- Ideal for automated placement
- Guard ring for overvoltage protection
- High surge current capability
- Moisture sensitivity level: level 1, per J-STD-020
- RoHS Compliant
- Halogen-free according to IEC 61249-2-21

### APPLICATIONS

- Switching mode power supply (SMPS)
- Adapters
- Lighting application
- Converter

### MECHANICAL DATA

- Case: DO-214AB (SMC)
- Molding compound meets UL 94V-0 flammability rating
- Terminal: Matte tin plated leads, solderable per J-STD-002
- Meet JESD 201 class 2 whisker test
- Polarity: Indicated by cathode band
- Weight: 0.210g (approximately)

KEY PARAMETERS		
PARAMETER	VALUE	UNIT
$I_F$	3	A
$V_{RRM}$	20 - 40	V
$I_{FSM}$	100	A
$T_{J\ MAX}$	125	°C
Package	DO-214AB (SMC)	
Configuration	Single die	



**DO-214AB (SMC)**



ABSOLUTE MAXIMUM RATINGS ( $T_A = 25^\circ\text{C}$ unless otherwise noted)					
PARAMETER	SYMBOL	SSL32	SSL33	SSL34	UNIT
Marking code on the device		SL32	SL33	SL34	
Repetitive peak reverse voltage	$V_{RRM}$	20	30	40	V
Reverse voltage, total rms value	$V_{R(RMS)}$	14	21	28	V
Forward current	$I_F$	3			A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	100			A
Junction temperature	$T_J$	- 55 to +125			°C
Storage temperature	$T_{STG}$	- 55 to +150			°C

**THERMAL PERFORMANCE**

PARAMETER	SYMBOL	TYP	UNIT
Junction-to-lead thermal resistance	$R_{\theta JL}$	17	°C/W
Junction-to-ambient thermal resistance	$R_{\theta JA}$	55	°C/W

**ELECTRICAL SPECIFICATIONS** ( $T_A = 25^\circ\text{C}$  unless otherwise noted)

PARAMETER		CONDITIONS	SYMBOL	TYP	MAX	UNIT
Forward voltage <sup>(1)</sup>		I <sub>F</sub> = 3A, T <sub>J</sub> = 25°C	V <sub>F</sub>	-	0.41	V
Reverse current @ rated V <sub>R</sub> <sup>(2)</sup>	SSL32	T <sub>J</sub> = 25°C	I <sub>R</sub>	-	0.2	mA
	SSL33					
	SSL34	-		0.5	mA	
	SSL32	T <sub>J</sub> = 100°C		-	50	mA
	SSL33					
SSL34	-		100	mA		

**Notes:**

1. Pulse test with  $PW = 0.3\text{ms}$
2. Pulse test with  $PW = 30\text{ms}$

**ORDERING INFORMATION**

ORDERING CODE <sup>(1)</sup>	PACKAGE	PACKING
SSL3x	DO-214AB (SMC)	3,000 / Tape & Reel

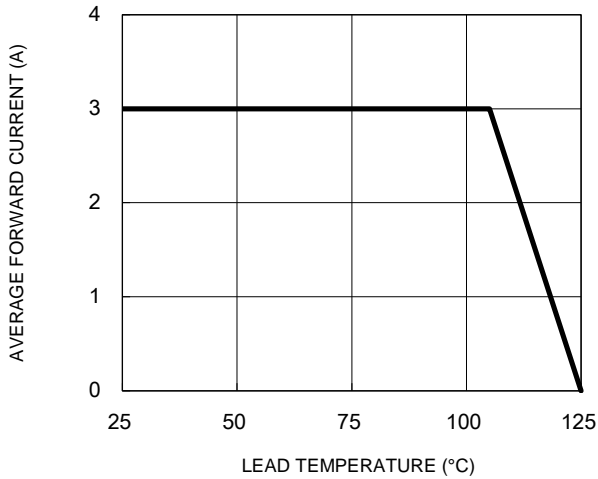
**Notes:**

1. "x" defines voltage from 20V(SSL32) to 40V(SSL34)

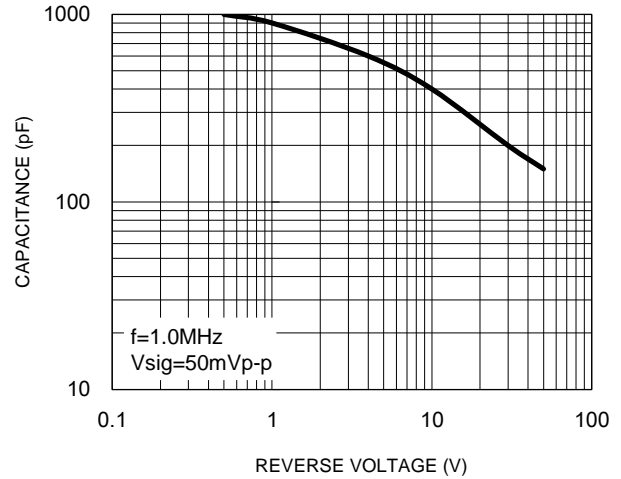
## CHARACTERISTICS CURVES

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

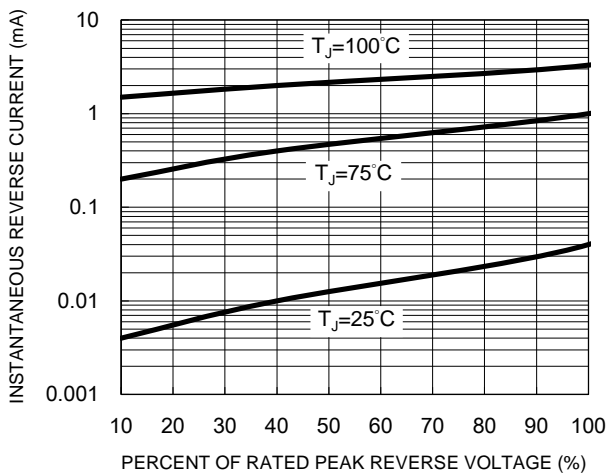
**Fig.1 Forward Current Derating Curve**



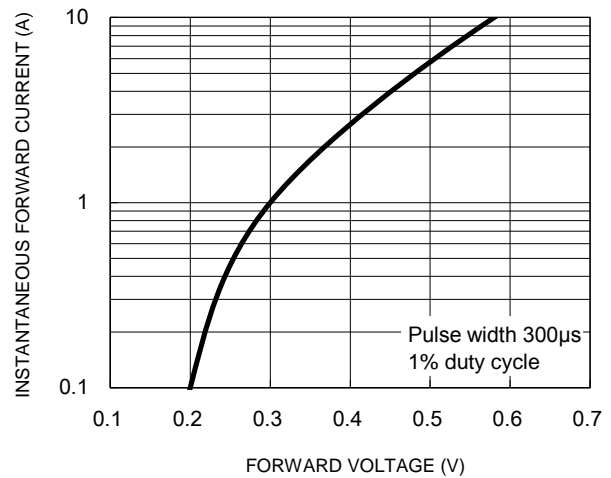
**Fig.2 Typical Junction Capacitance**



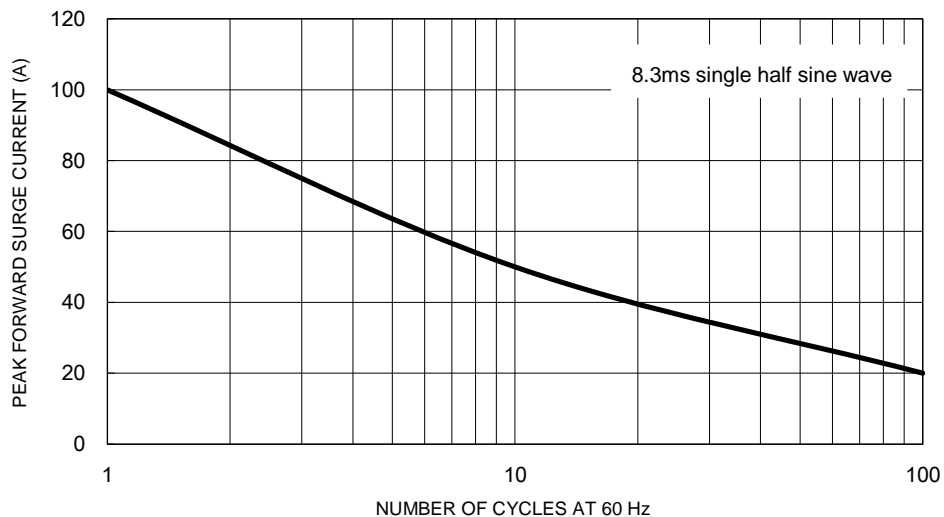
**Fig.3 Typical Reverse Characteristics**



**Fig.4 Typical Forward Characteristics**

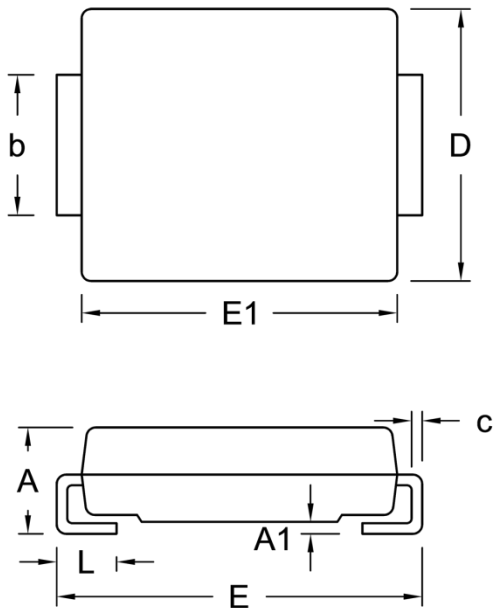


**Fig.5 Maximum Non-Repetitive Forward Surge Current**



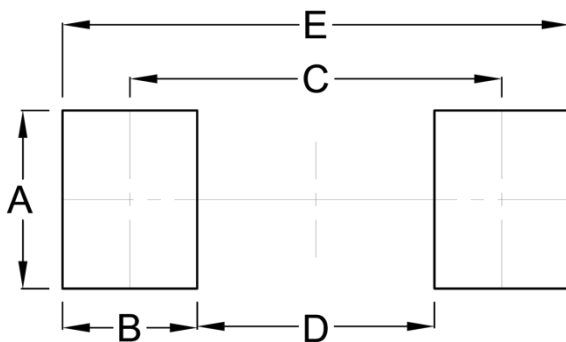
## PACKAGE OUTLINE DIMENSIONS

DO-214AB (SMC)



DIM.	Unit (mm)		Unit (inch)	
	Min.	Max.	Min.	Max.
A	2.00	2.62	0.079	0.103
A1	0.10	0.20	0.004	0.008
b	2.90	3.20	0.114	0.126
c	0.15	0.31	0.006	0.012
D	5.59	6.22	0.220	0.245
E	7.75	8.13	0.305	0.320
E1	6.60	7.11	0.260	0.280
L	1.00	1.60	0.039	0.063

## SUGGESTED PAD LAYOUT



Symbol	Unit (mm)	Unit (inch)
A	3.30	0.130
B	2.50	0.098
C	6.90	0.272
D	4.40	0.173
E	9.40	0.370

## MARKING DIAGRAM



P/N = Marking Code  
G = Green Compound  
YW = Date Code  
F = Factory Code

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