

SM5100LA

Schottky Barrier Rectifiers

Reverse Voltage 100V Forward Current 5.0A

FEATURES

- * Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- * Low power loss,high efficiency
- * For use in low voltage high frequency inverters, free wheeling,and polarity protection applications
- * Low forward voltage drop
- * High temperature soldering guaranteed: 260°C/10 seconds at terminals

Mechanical Data

Case: JEDEC DO-214AC,
molded plastic

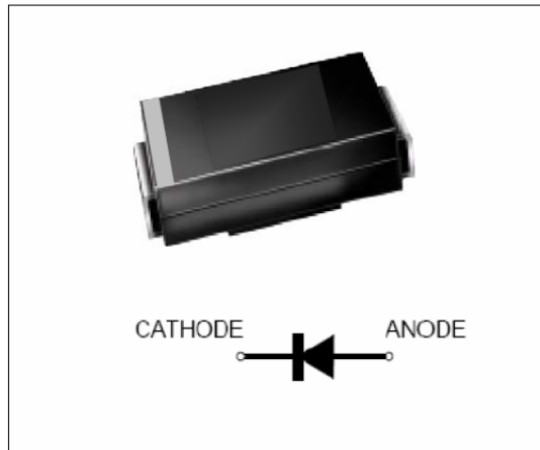
Terminals: Plated axial leads, solderable per
MIL-STD-750, Method 2026

Polarity: Color band denotes cathode end

Mounting Position: Any

Weight: 0.0023 oz., 0.065 g

Handling precaution:None



We declare that the material of product is
Haloggen free (green epoxy compound)

1.Electrical Characteristic

Maximum & Thermal Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Parameter Symbol	symbol	SM5100LA	Unit
device marking code		S510L	
Maximum repetitive peak reverse voltage	V_{RRM}	100	V
Maximum RMS voltage	V_{RMS}	70	V
Maximum DC blocking voltage	V_{DC}	100	V
Maximum average forward rectified current at TC= 75°C	$I_{F(AV)}$	5.0	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	100	A
Typical thermal resistance (Note 1)	$R_{\theta JA}$	150	°C/W
Operating junction and storage temperature range	T_J, T_{STG}	-50 to +150	°C

Electrical Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Parameter Symbol	symbol	SM5100LA	Unit
Maximum instantaneous forward voltage at 5.0A	V_F	0.70	V
Maximum DC reverse current $T_A = 25^\circ\text{C}$ at rated DC blocking voltage $T_J = 100^\circ\text{C}$	I_R	0.05 10.0	mA
Typical junction capacitance at 4.0V, 1MHz	C_J	350	PF

NOTES:

1. 8.0mm2 (.013mm thick) land areas

SM5100LA

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

Fig. 1 - Forward Current Derating Curve

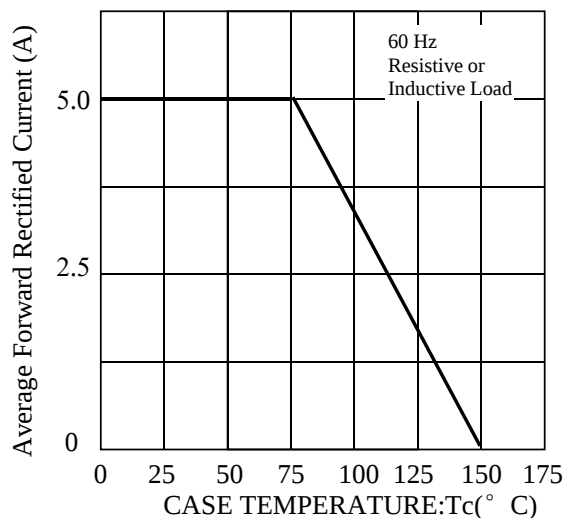


Fig. 2 - Maximum Non-repetitive Peak

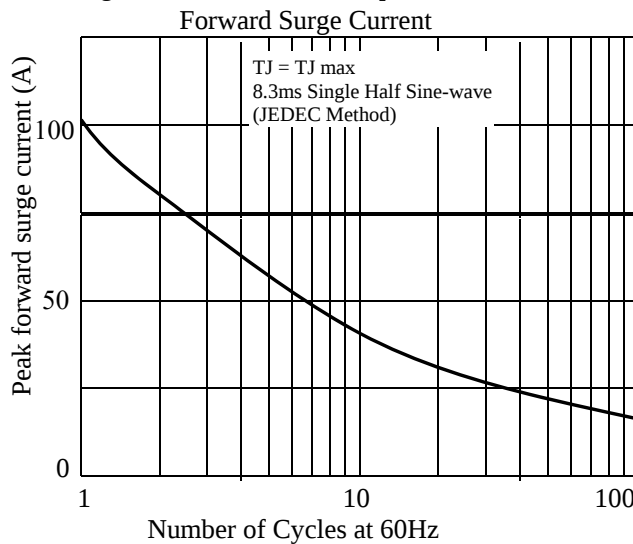


Fig 3. - Typical Instantaneous Forward Characteristics

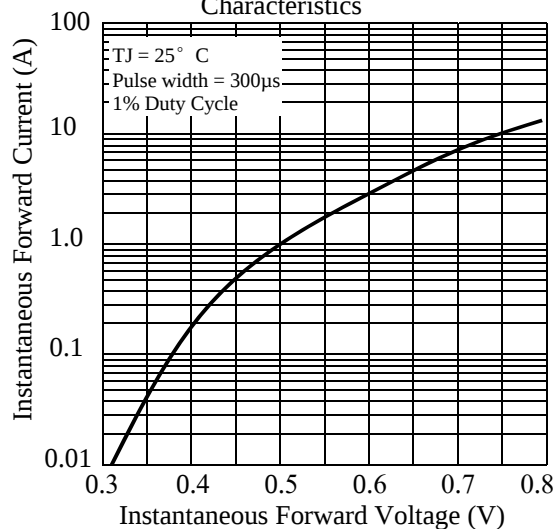


Fig 4. - Typical Reverse Characteristics

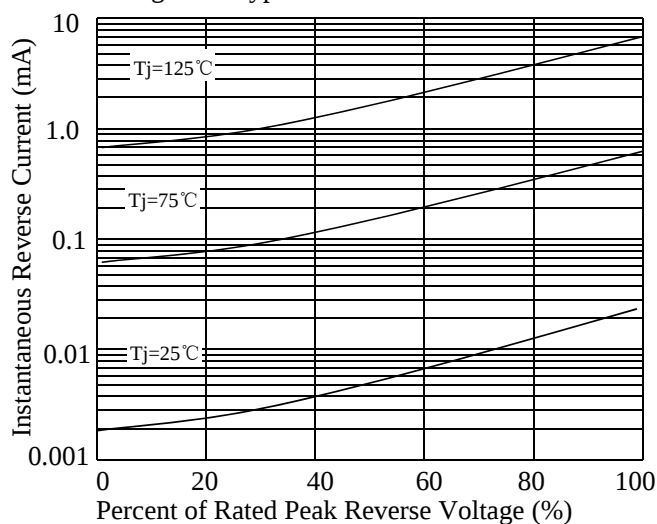


Fig 5. - typical transient thermal impedance

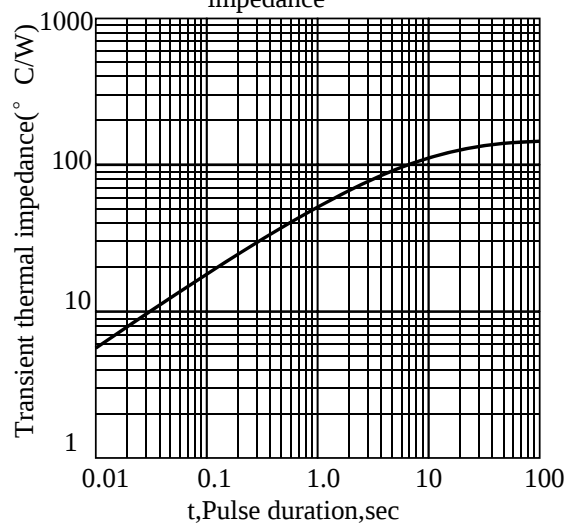
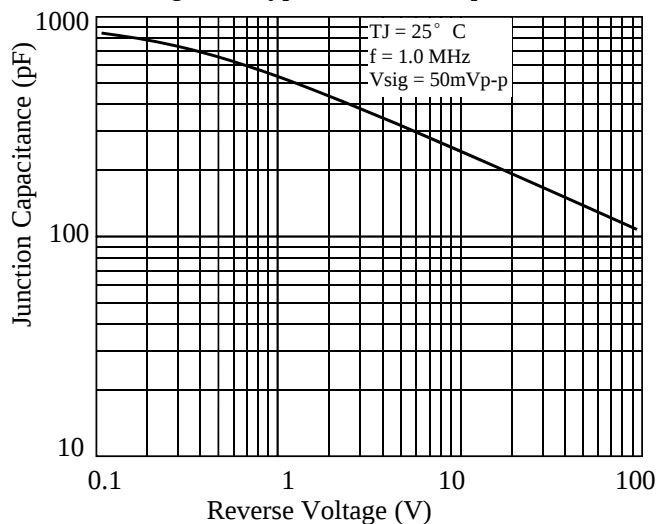
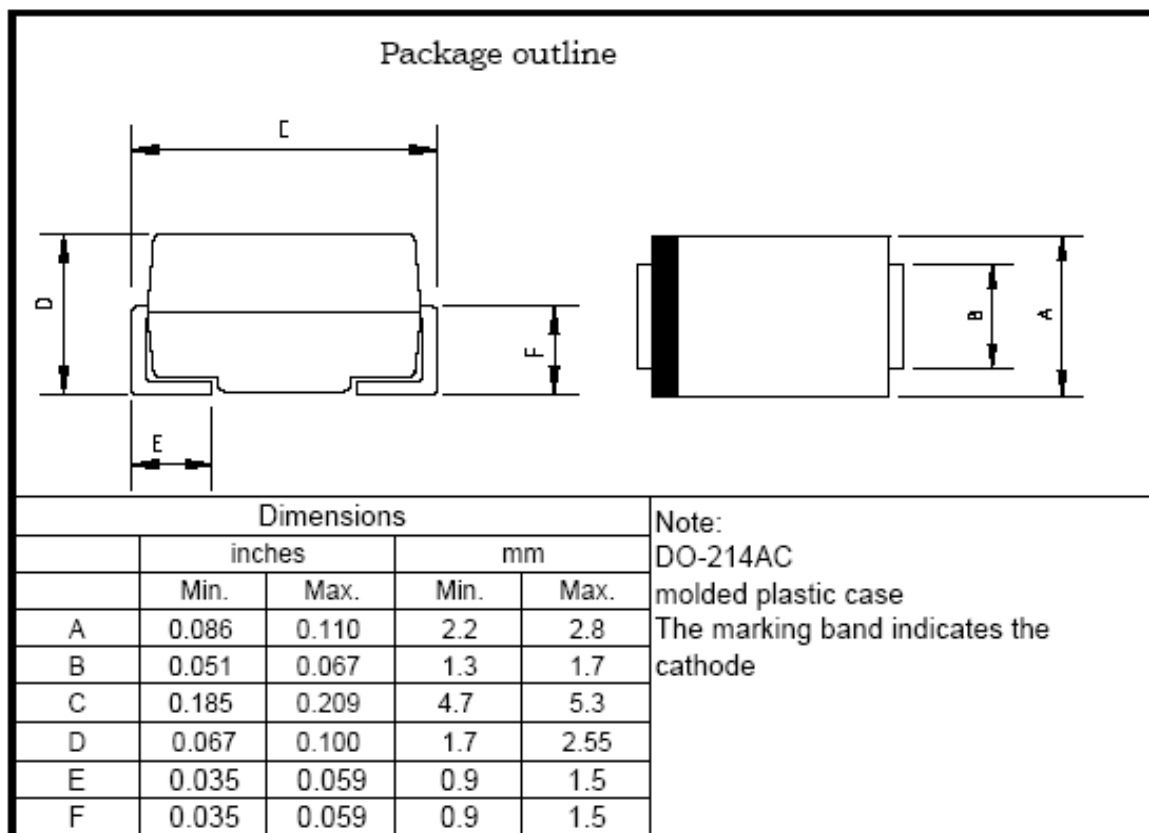


Fig 6. - Typical Junction Capacitance



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3. dimension:





LRC

乐山无线电股份有限公司
Leshan Radio Company, Ltd

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4. Update Record

版次	更新记录	更新作者	更新日期
1	第一版	谭志伟	2021-4-25