

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

SX5817--SX5819

FEATURES

- Metal-Semiconductor junction with guard ring
- Epitaxial construction
- Low forward voltage drop, low switching losses
- High surge capability
- The plastic material carries U/L recognition 94V-0



MECHANICAL DATA

- Case: JEDEC SOD-123FL, molded plastic over passivated chip
- Terminals: Solder Plated, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end

Maximum Ratings (@TA = 25°C unless otherwise specified)

Characteristic	Symbol	SX5817	SX5818	SX5819	UNITS
Device marking code		S2	S3	S4	
Maximum recurrent 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 $T_J=90^{\circ}\text{C}$	$I_{(AV)}$	1.0			A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load	I_{FSM}	25			A

Thermal Characteristics

Characteristic	Symbol	SX5817	SX5818	SX5819	UNITS
Typical junction capacitance	C_J	30			p F
Operating temperature range	T_J	- 55 --- + 125			°C
Storage temperature range	T_{STG}	- 55 --- + 150			°C

Electrical Characteristics (@TA = 25°C unless otherwise specified)

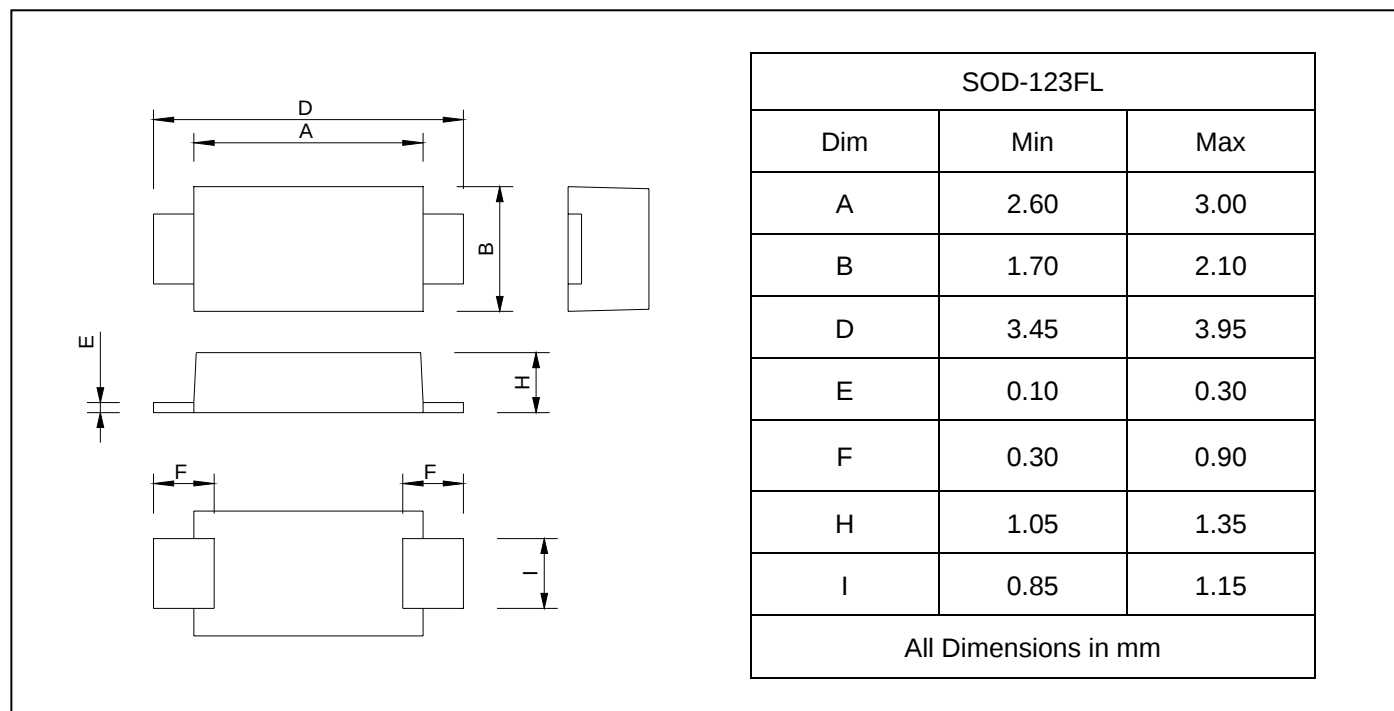
Characteristic	Symbol	SX5817	SX5818	SX5819	UNITS
Maximum instantaneous @ $I_{FM}=1.0\text{A}$ forward voltage	V_F	0.45	0.55	0.60	V
Repetitive peak reverse current at rated DC blocking voltage	I_R	0.3			m A

NOTE1. Measured at $f=1.0\text{MHz}$, $V_R=4.0\text{V}$

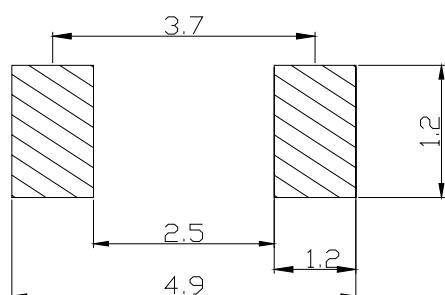
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PACKAGE OUTLINE DIMENSIONS



SOLDERING FOOTPRINT



Unit : mm

PACKAGE INFORMATION

Device	Package	Shipping
SX5817--SX5819	SOD-123FL	10000/Tape&Reel

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FIG.1 – FORWARD DERATING CURVE

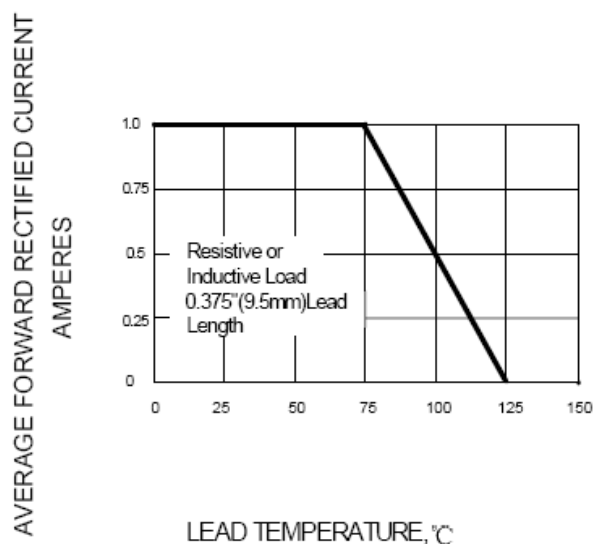


FIG.2 – PEAK FORWARD SURGE CURRENT

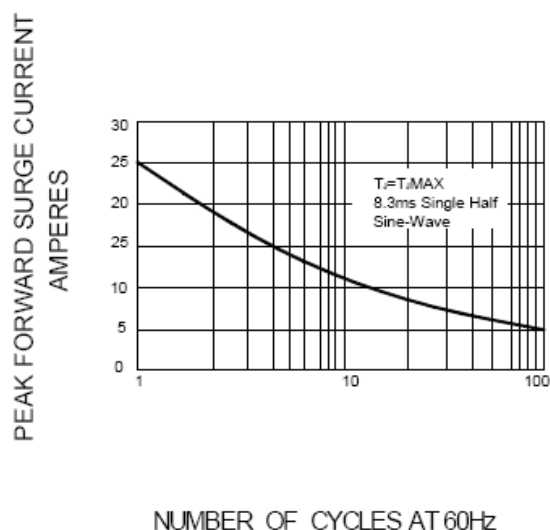


FIG.3 – TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

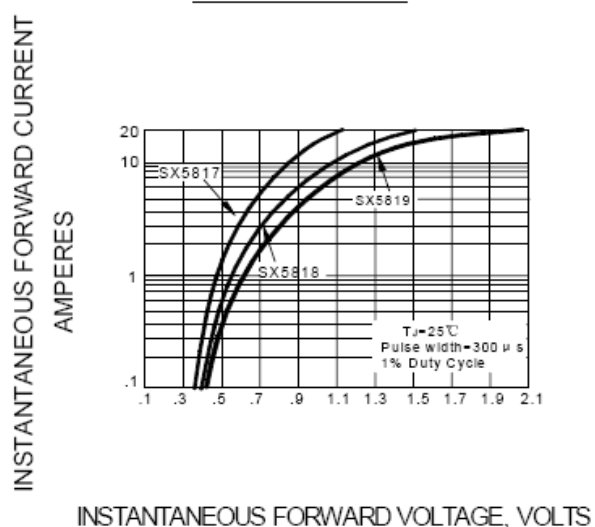


FIG.4 – TYPICAL JUNCTION CAPACITANCE

