SMALL SURFACE MOUNT SCHOTTKY RECTIFIER

REVERSE VOLTAGE: 40 V
CURRENT: 0.5 A

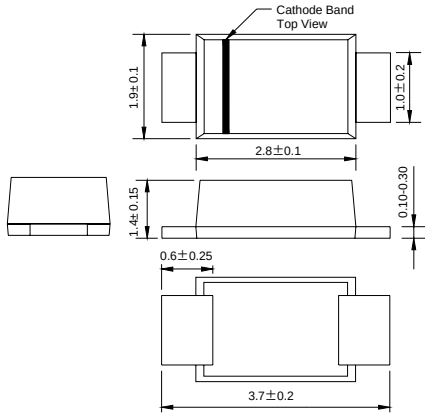
FEATURES

- ◇ Low profile package
- ◇ For surface mouted applications
- ◇ Idear for automated placement
- ◇ Low power loss,high efficiency
- ◇ High temperature soldering: 250℃/10 seconds at terminals

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
- ◇ Weight: 0.006 ounces, 0.02 gram
- ◇ Device marking code: B4

SOD - 123FL



Dimensions in millimeters

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified.
Single phase,half wave,60Hz,resistive or inductive load.For capactive load,derate current by 20%.

ABSOLUTE RATINGS

Parameter	Symbol	Value	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	40	V
Maximum working peak reverse voltage	V_{RWM}	40	V
Maximum DC blocking voltage	V_R	40	V
Maximum average forword rectified current at rated V_R @V_C=115℃	$I_{(AV)}$	0.5	A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @ T_L=25℃	I_{FSM}	5.5	A
Typical thermal resistance (NOTE 1)	$R_{\theta JA}$	206	℃/W
Typical thermal resistance (NOTE 2)	$R_{\theta JL}$	118	℃/W
Operating temperature range	T_j	-55---+150	℃
Storage temperature range	T_{STG}	-55---+150	℃

NOTES:1. Thermal resistance junction to ambient

2. Thermal resistance junction to lead

www.galaxycn.com

ELECTRICAL CHARACTERISTICS

Parameter	Symbol	Min	Typ.	Max.	Unit
Maximum instantaneous @I_F=0.5A,T_J=25℃	V_F	-	-	0.51	V
forward voltage I_F=0.5A,T_J=100℃		-	-	0.46	
(NOTE 3) I_F=1.0A,T_J=25℃		-	-	0.62	
I_F=1.0A,T_J=100℃		-	-	0.61	
Maximum DC reverse current @V_R=40V,T_J=25℃	I_R	-	-	20	μA
at rated DC blocking voltage V_R=40V,T_J=100℃		-	-	5.0	m A
V_R=20V,T_J=25℃				10	μA

NOTES: 3.Pulse test:300μs pulse width,1% duty cycle.

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

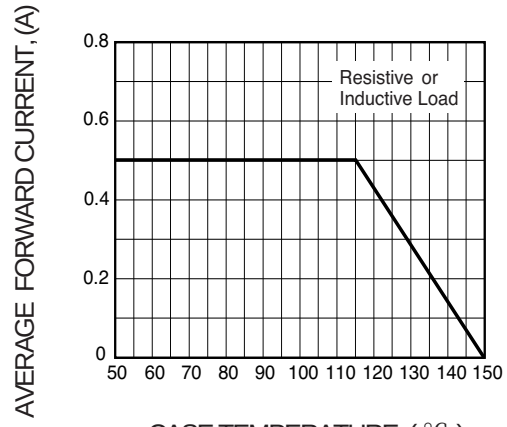


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

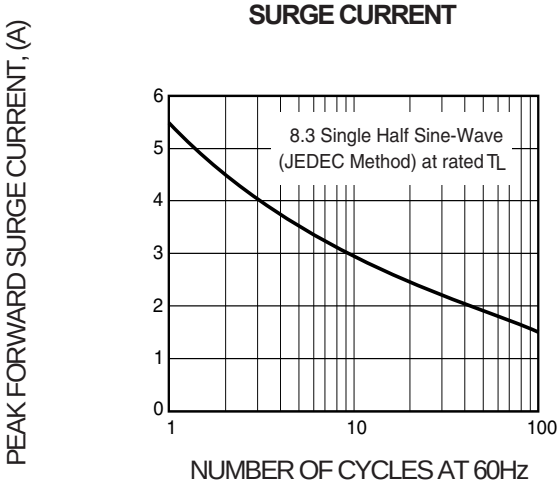


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

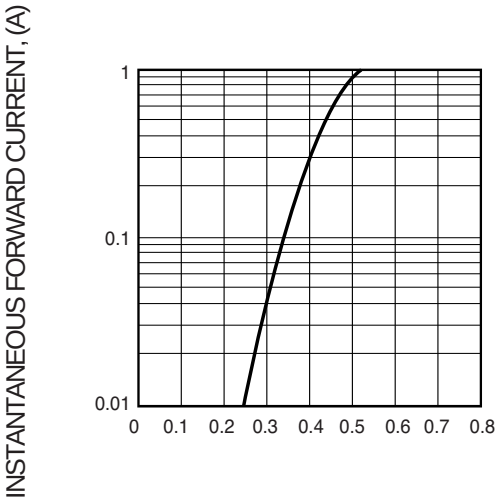


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

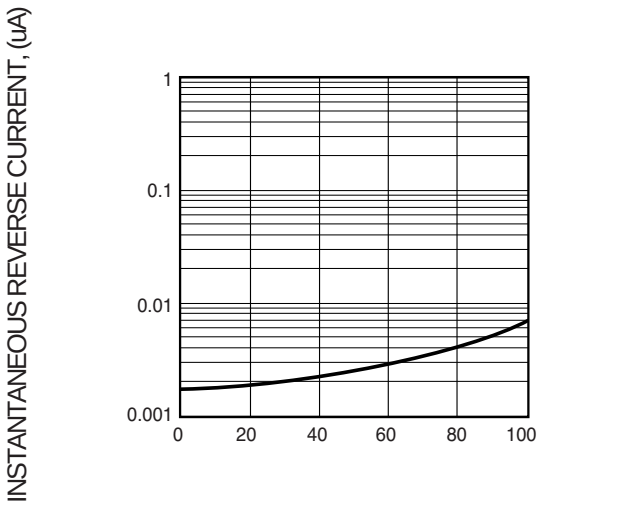


FIG. 5 - TYPICAL JUNCTION CAPACITANCE