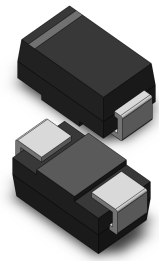
SSA23L - SSA24L

SURFACE MOUNT SCHOTTKY RECTIFIER DIODE

VOLTAGE RANGE: 30 - 40V
CURRENT: 2.0 A



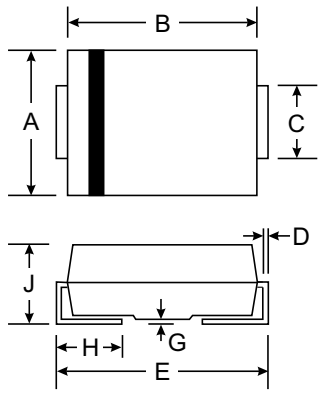
Features

- Low power loss, high efficiency
- Low profile surface mount package
  Built-in strain relief
- For use in low voltage high frequency inverters, free
- wheeling, and polarity protection applications
- Guardring for overvoltage protection
- Plastic package has Underwriters Laboratory
  Flammability Classification 94V-0

Mechanical Data

- Case SMA(DO-214AC) Molded Plastic
- Polarity: Indicated by cathode band
- Weight: 0.002 ounces, 0.053 grams
- Mounting position: Any

RoHS COMPLIANT



SMA(DO-214AC)		
Dim	**Min**	**Max**
A	2.29	2.92
B	4.00	4.60
C	1.27	1.63
D	0.15	0.31
E	4.80	5.59
G	0.10	0.20
H	0.76	1.52
J	2.01	2.62
All Dimensions in mm		

Maximum Ratings and Electrical Characteristics T_A = 25°C unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Characteristic	**Symbol**	**SSA23L**	**SSA24L**	**Unit**
Maximum repetitive peak reverse voltage	V_{RRM}	30	40	V
Maximum RMS voltage	V_{RMS}	21	28	V
Maximum DC blocking voltage	V_{DC}	30	40	V
Maximum average forward rectified current at T_L (See Fig. 1)	$I_{F(AV)}$	2.0		A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	60		A
Non-repetitive avalanche energy at TA = 25°C, IAS = 1.5A, L = 10mH	EAS	11.25		mJ
Typical thermal resistance (2)	$R_{\Theta JA}$ $R_{\Theta JL}$	110 28		°C/W
Voltage rate of change (rated V_R)	dv/dt	10,000		V/μs
Operating junction temperature range	T_J	-65 to + 150		°C
Storage temperature range	T_{STG}	-65 to + 150		°C

Electrical Characteristics (T_A = 25°C unless otherwise noted)

Parameter		**Symbol**	**Typ.**	**Max.**	**Typ.**	**Max.**	**Unit**
Maximum instantaneous forward voltage at 2.0A(1)	T_J=25°C T_J=125°C	V_F	0.43 0.32	0.45 0.38	0.45 0.36	0.49 0.42	V
Maximum DC reverse current at rated DC blocking voltage (1)	T_J=25°C T_J=125°C	I_R	– 15	0.5 25	– 12	0.2 20	mA

Notes: (1) Pulse test: 300μs pulse width, 1% duty cycle
(2) Aluminum substrate mounted

RATINGS AND CHARACTERISTIC CURVES SSA23L THRU SSA24L

Fig. 1 – Forward Current Derating Curve

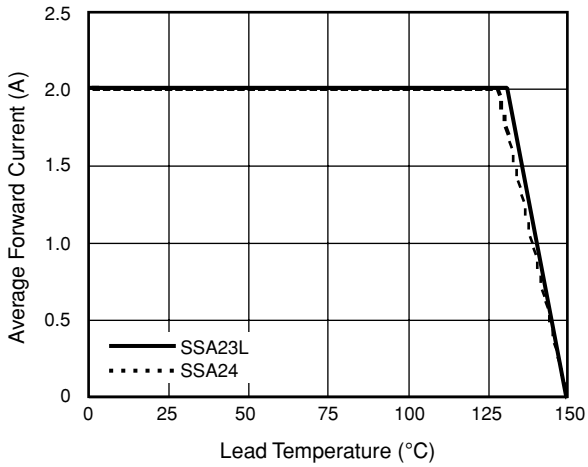


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

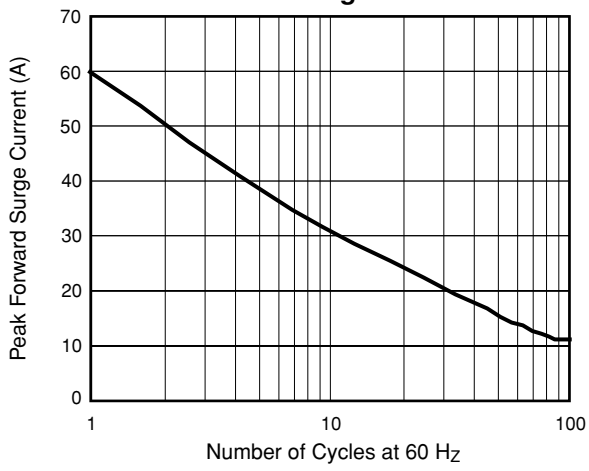


Fig. 3 - Typical Instantaneous Forward Characteristics

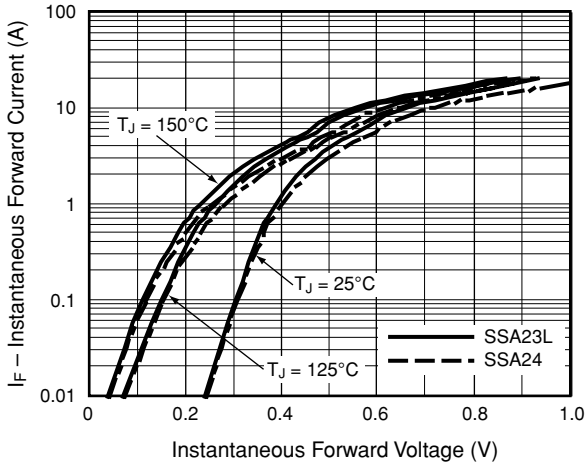


Fig. 4 - Typical Reverse Characteristics

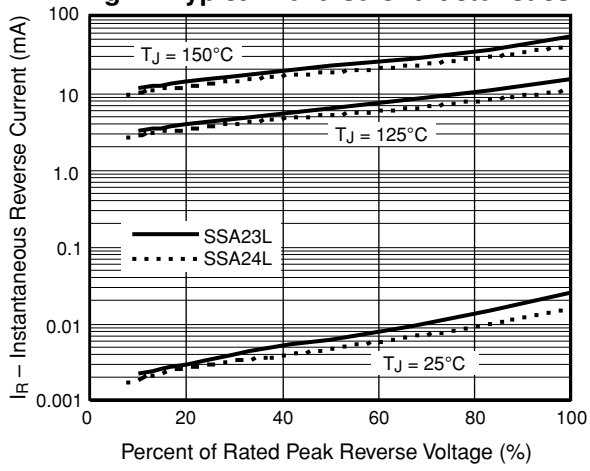


Fig. 5 - Typical Junction Capacitance