SURFACE MOUNT HIGH EFFICIENCY RECTIFIER

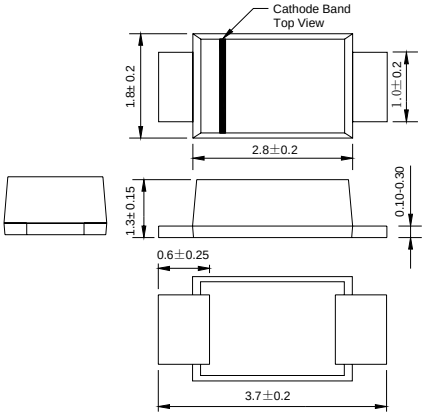
US1AL THRU US1ML

VOLTAGE RANGE 50 to1000 Volts
CURRENT 1.0 Ampere

FEATURES

- Glass passivated device
- Ideal for surface mouted applications
- Low reverse leakage
- Metallurgically bonded construction
- High temperature soldering guaranteed:
  260℃/10 seconds,0.375”(9.5mm) lead length,
  5 lbs. (2.3kg) tension

SOD-123FL



Dimensions in millimeters

MECHANICAL DATA

- Case: JEDEC SOD-123FL molded plastic body over passivated chip
- Terminals : Plated axial leads, solderable per MIL-STD-750, Method 2026
- Polarity : Color band denotes cathode end
- Mounting Position : Any
- Weight :0.0007 ounce, 0.02 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

	SYMBOLS	US1AL UA	US1BL UB	US1DL UD	US1GL UG	US1JL UJ	US1KL UK	US1ML UM	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	VOLTS
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	VOLTS
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	VOLTS
Maximum average forward rectified current	$I_{(AV)}$	1.0							Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	25.0							Amps
Maximum instantaneous forward voltage at1.0A	V_F	1.0			1.4	1.7			Volts
Maximum DC reverse current T_A=25℃ at rated DC blocking voltage T_A=100℃	I_R	5.0 100.0							μA
Maximum reverse recovery time (NOTE 1)	trr	50				75			ns
Typical thermal resistance	$R_{\theta JA}$	180							K/W
Operating junction and storage temperature range	T_J,T_{STG}	-55 to +150							℃

Note: 1.Measured with IF=0.5A, IR=1A, Irr=0.25A.

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FIG. 1- FORWARD CURRENT DERATING CURVE

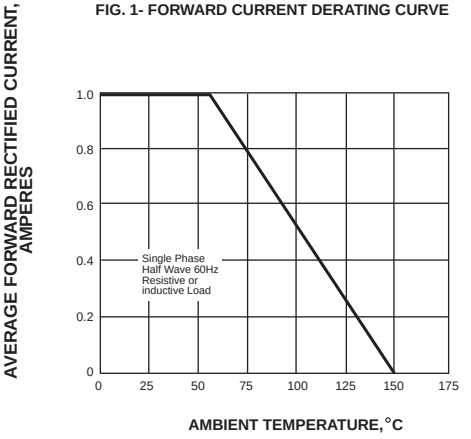

FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

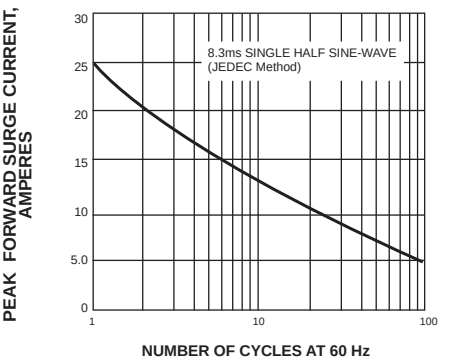

FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

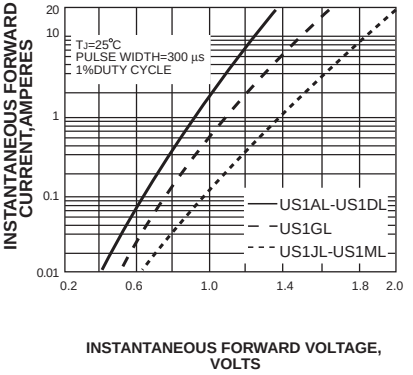

FIG. 4-TYPICAL REVERSE CHARACTERISTICS