

**SURFACE MOUNT GLASS PASSIVATED
SUPER FAST SILICON RECTIFIER**
VOLTAGE RANGE 50 to 600 Volts CURRENT 1.0 Ampere

FEATURES

- * Glass passivated device
- * Ideal for surface mounted applications
- * Low leakage current
- * Metallurgically bonded construction
- * Mounting position: Any
- * P/N suffix V means AEC-Q101 qualified, e.g:ES1ASLV
- * P/N suffix V means Halogen-free

MECHANICAL DATA

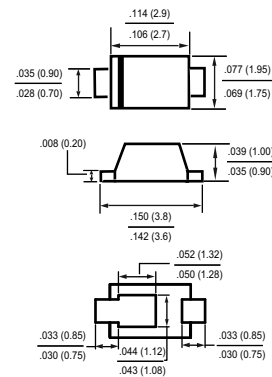
- * Epoxy : Device has UL flammability classification 94V-0
- * Weight: 0.0152 gram(Approx.)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.
Resistive or inductive load.



SOD-123FL



Dimensions in inches and (millimeters)

MAXIMUM RATINGS (@ TA=25 °C unless otherwise noted)

RATINGS	SYMBOL	ES1ASL	ES1BSL	ES1CSL	ES1DSL	ES1ESL	ES1GSL	ES1JSL	UNITS
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	50	100	150	200	300	400	600	Volts
Maximum RMS Voltage	V _{RMS}	35	70	105	140	210	280	420	Volts
Maximum DC Blocking Voltage	V _{DC}	50	100	150	200	300	400	600	Volts
Maximum Average Forward Rectified Current at T _L = 90°C	I _O	1.0							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	50							Amps
Typical Current Square Time	I ² T	10.37							A ² S
Typical Thermal Resistance (Note 4)	R _{θJA}	100							°C/W
Typical Junction Capacitance (Note 2)	C _J	10							pF
Operating and Storage Temperature Range	T _J , T _{STG}	-55 to + 150							°C

ELECTRICAL CHARACTERISTICS(@TA=25 °C unless otherwise noted)

CHARACTERISTICS		SYMBOL	ES1ASL	ES1BSL	ES1CSL	ES1DSL	ES1ESL	ES1GSL	ES1JSL	UNITS
Maximum Instantaneous Forward Voltage at 1.0A DC		V _F	0.95				1.25		1.70	Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	@T _A = 25°C	I _R	5.0							μAmps
	@T _A = 100°C		100							
Maximum Reverse Recovery Time (Note 1)		t _{rr}	25							nSec

NOTES : 1. Reverse Recovery Test Conditions: I_F = 0.5A, I_R = -1.0A, I_{RR} = -0.25A
2. Measured at 1 MHz and applied reverse voltage of 4.0 volts
3. Thermal Resistance : Mounted on PCB.

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REV: A

RATINGS AND CHARACTERISTIC CURVES (ES1ASL THRU ES1JSL)

FIG. 1- FORWARD CURRENT DERATING CURVE

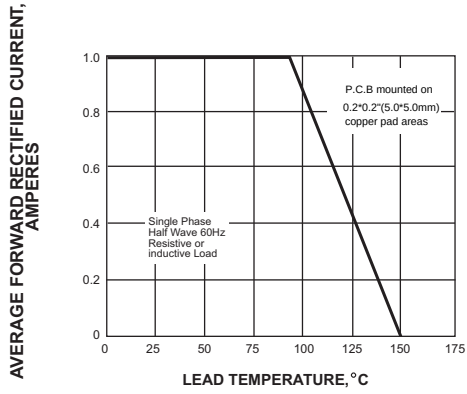


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

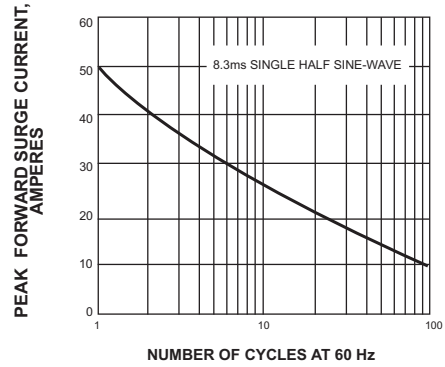


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

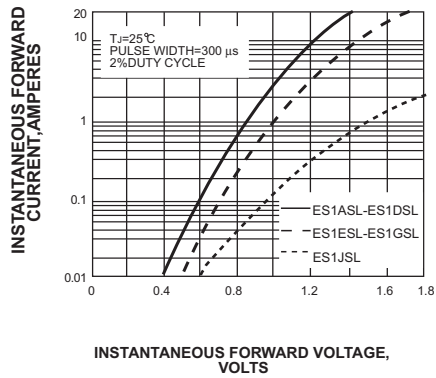


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

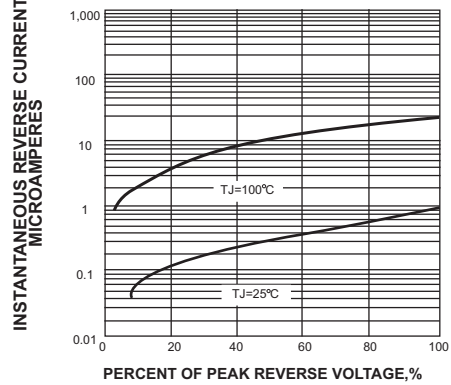


FIG. 5-TYPICAL JUNCTION CAPACITANCE

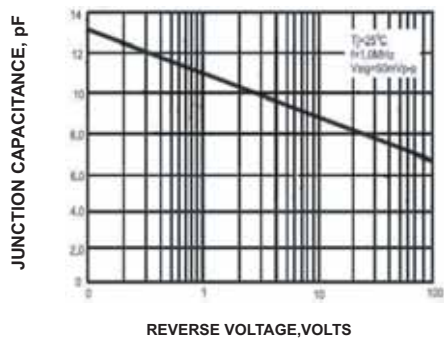
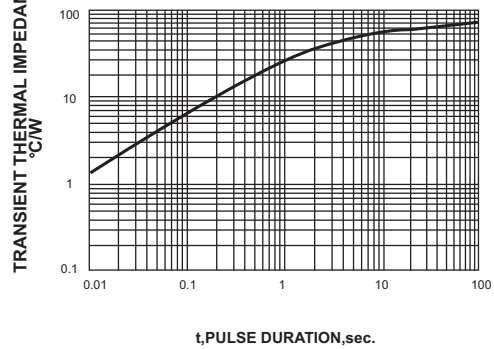
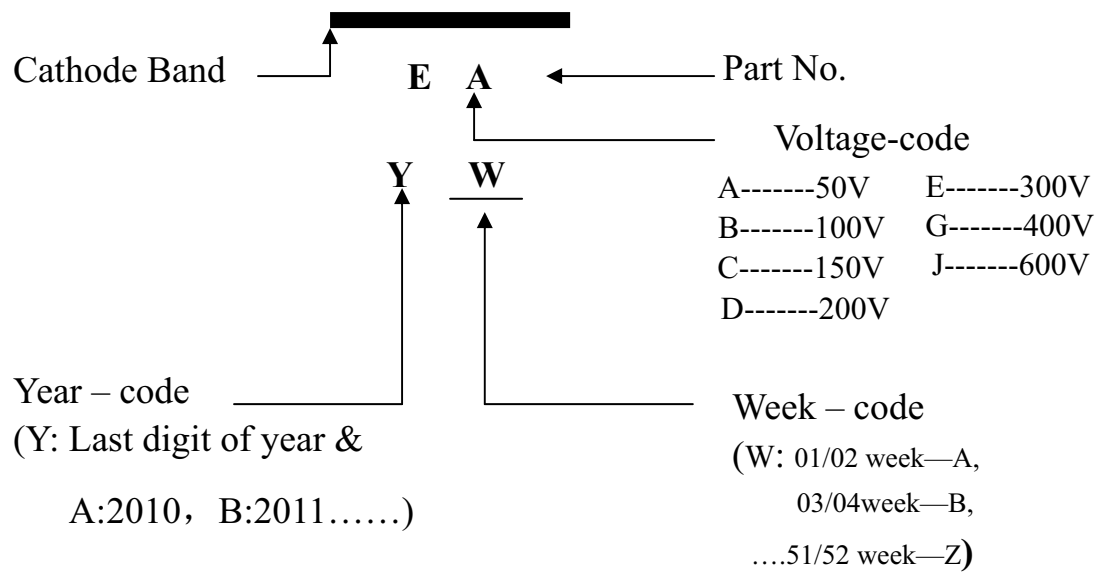


FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE



Marking Description



PACKAGING OF DIODE AND BRIDGE RECTIFIERS

REEL PACK

PACKAGE	PACKING CODE	EA PER REEL	EA PER INNER BOX	COMPONENT SPACE (mm)	TAPE SPACE (mm)	REEL DIA (mm)	CARTON SIZE (mm)	EA PER CARTON	GROSS WEIGHT(Kg)
SOD-123F/ SOD-123FL	-W	3,000	15,000	---	---	178	390*205*31	120,000	6.964

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