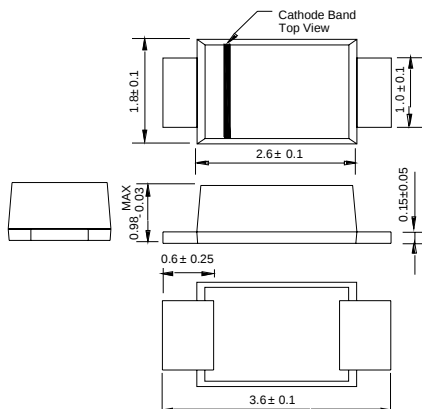




SOD-123FL



Dimensions in millimeters

FEATURES

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ For surface mounted applications
- ◆ Metal silicon junction, majority carrier conduction
- ◆ Low power loss, high efficiency
- ◆ Built-in strain relief, ideal for automated placement
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed: 250°C/10 seconds at terminals

MECHANICAL DATA

Case: JEDEC SOD-123FL molded plastic body
 Terminals : 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°C ambient temperature unless otherwise specified.
 Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

	SYMBOLS	SS32FL K32	SS33FL K33	SS34FL K34	SS35FL K35	SS36FL K36	SS38FL K38	SS310FL K310	SS315FL K315	SS320FL K320	UNITS
Maximum repetitive peak reverse voltage	V _{RRM}	20	30	45	50	60	80	100	150	200	VOLTS
Maximum RMS voltage	V _{RMS}	14	21	31	35	42	56	70	105	140	VOLTS
Maximum DC blocking voltage	V _{DC}	20	30	45	50	60	80	100	150	100	VOLTS
Maximum average forward rectified current at T _L (see fig.1)	I _(AV)	3.0									Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	80.0									Amps
Maximum instantaneous forward voltage at 3.0A	V _F	0.55			0.70		0.85			0.95	Volts
Maximum DC reverse current at rated DC blocking voltage	I _R	0.5									mA
T _A =25°C T _A =100°C		20			10						
Typical junction capacitance (NOTE 1)	C _J	500			300						pF
Typical thermal resistance (NOTE 2)	R _{QJA}	88.0									°C/W
Operating junction temperature range	T _J	-65 to +150					-65 to +175				°C
Storage temperature range	T _{STG}	-65 to +150									°C

Note: 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
 2. P.C.B. mounted with 0.2x0.2" (5.0x5.0mm) copper pad areas



FIG. 1- FORWARD CURRENT DERATING CURVE

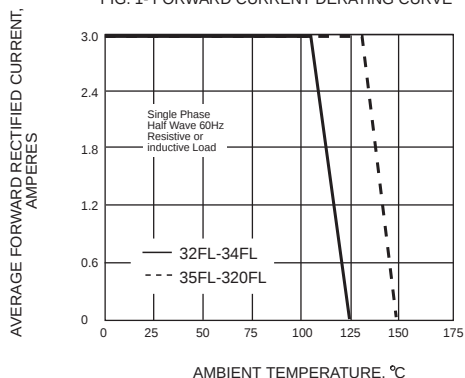


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

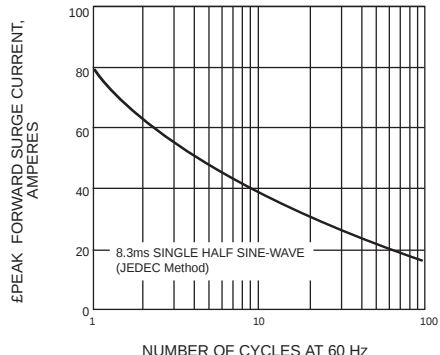


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

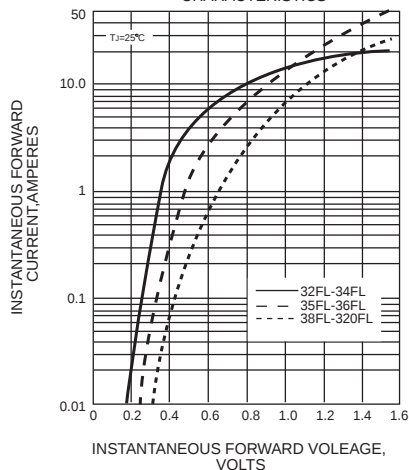


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

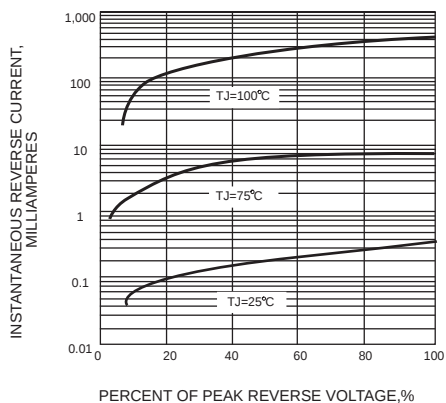


FIG. 5-TYPICAL JUNCTION CAPACITANCE

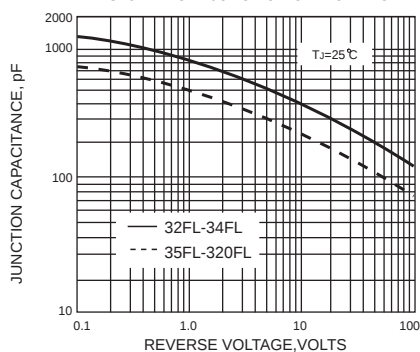
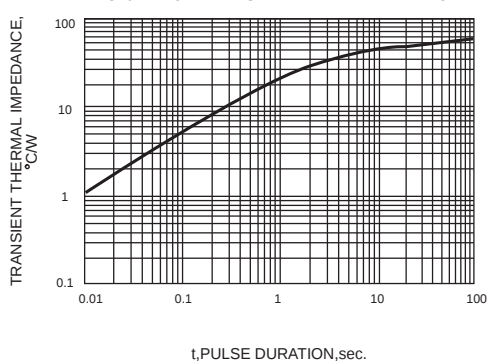
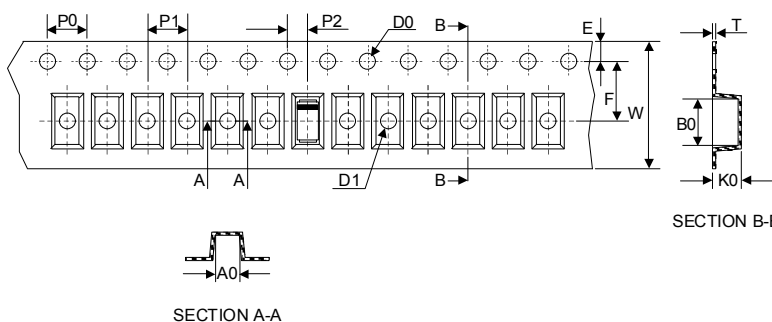
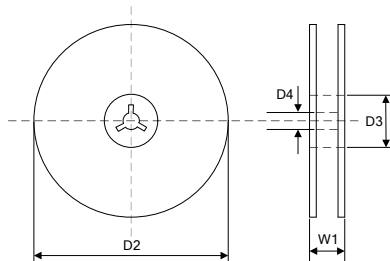
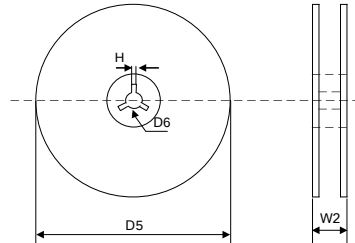


FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE





Packaging

Tape  SECTION A-A SECTION B-B	Symbol	Dimension (mm)	
	W	12.00±0.20	
	P0	4.00±0.10	
	P1	4.00±0.10	
	P2	2.00±0.10	
	D0	Φ1.5±0.10	
	D1	Φ1.5±0.10	
	E	1.75±0.10	
	F	5.50±0.05	
	A0	2.79±0.10	
	B0	5.33±0.10	
	K0	2.55±0.15	
	T	0.25±0.05	
7" Reel 	D2	Φ178.0±2.0	
	D3	Φ50.0Min.	
	D4	Φ13.0±0.5	
	W1	16.0±2.0	
	Quantity: 3000PCS		
13" Reel 	D5	Φ330.0±2.0	
	D6	Φ13.5±0.5	
	H	2.5±1.0	
	W2	16.0±2.0	
	Quantity: 10000PCS		