

SURFACE MOUNT SCHOTTKY BARRIER DIODES

Features

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0 RoHS-compliant
- ◆ Idea for printed circuit board
- ◆ Open Junction chip
- ◆ Low reverse leakage High forward surge current
- ◆ capability High temperature soldering guaranteed
- ◆ 250°C/10 seconds at terminals

Mechanical Data

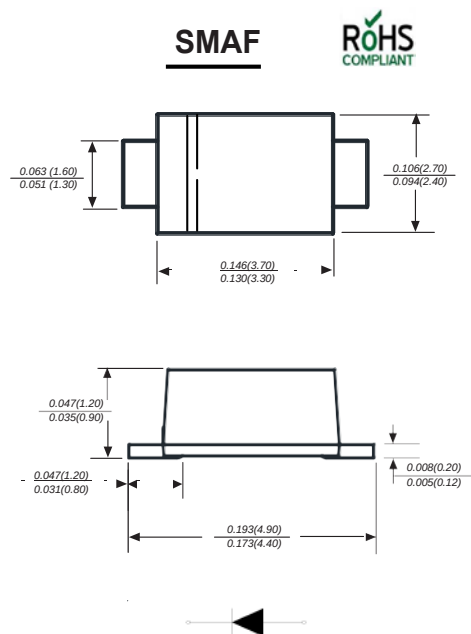
Case : SMAF molded plastic body

Terminals : Solderable per MIL-STD-750,Method 2026

Polarity : Polarity symbol marking on body

Mounting Position : Any

Weight : 0.0014 ounce, 0.038 grams



Dimensions in inches and (millimeters)

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%.

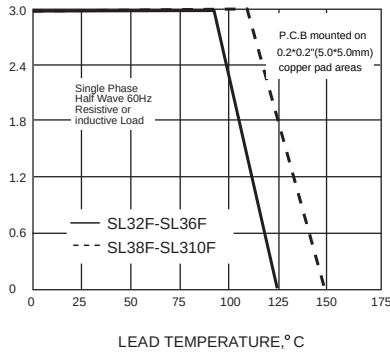
Parameter	SYMBOLS	MDD SL32F	MDD SL34F	MDD SL36F	MDD SL38F	MDD SL310F	UNITS
Marking Code							
Maximum repetitive peak reverse voltage	V _{RRM}	20	40	60	80	100	
Maximum RMS voltage	V _{RMS}	14	28	42	56	70	V
Maximum DC blocking voltage	V _{DC}	20	40	60	80	100	V
Maximum average forward rectified current at TL(see fig.1)	I _(AV)	3.0					A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	70					A
Maximum instantaneous forward voltage at 3.0A	V _F	0.45		0.5	0.7		V
Maximum DC reverse current T _A =25℃ at rated DC blocking voltage T _A =125℃	I _R	0.5 10.0			0.2 5.0		mA
Typical junction capacitance (NOTE 1)	C _J	500		300			pF
Typical thermal resistance (NOTE 2)	R _{θJA}	88.0					℃/W
Operating junction temperature range	T _J	-55 to +125			-55 to +150		℃
Storage temperature range	T _{STG}	-55 to +150					℃

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

Typical Characteristics

AVERAGE FORWARD RECTIFIED CURRENT,
AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



PEAK FORWARD SURGE CURRENT,
AMPERES

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

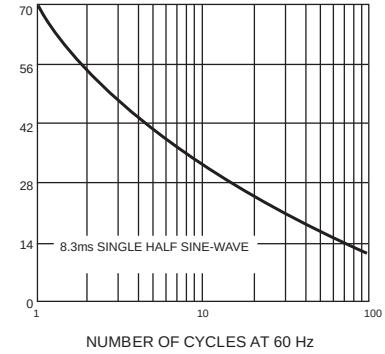


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

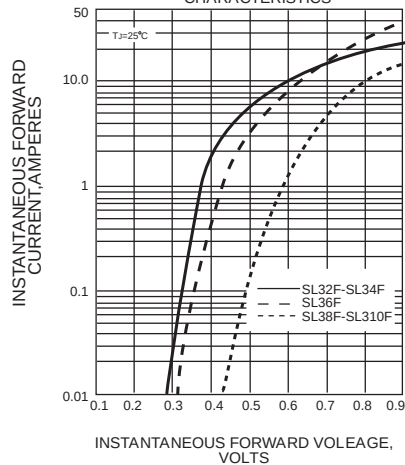


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

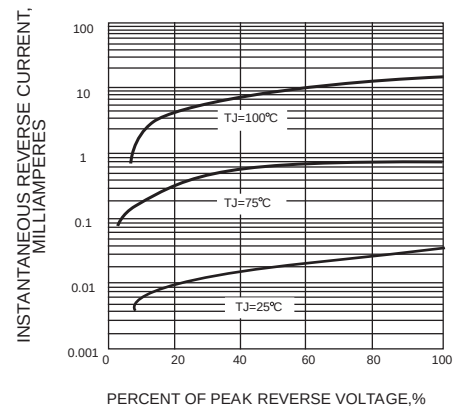


FIG. 5-TYPICAL JUNCTION CAPACITANCE

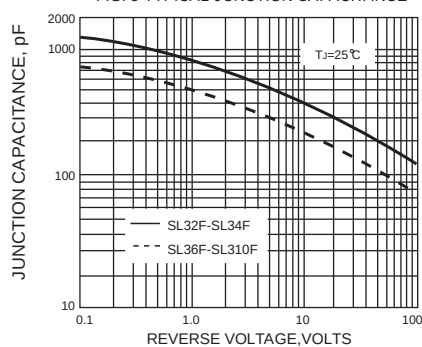
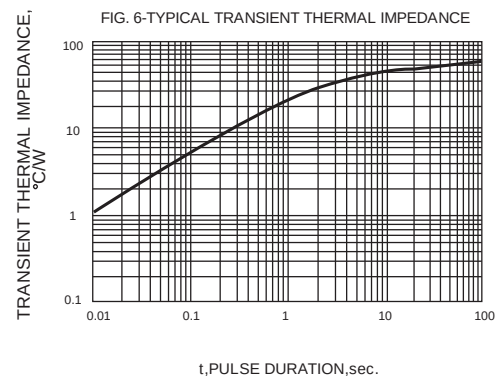
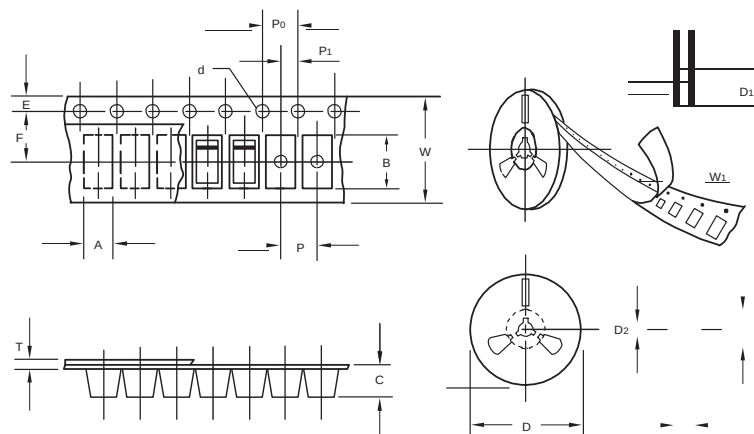


FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE



The curve above is for reference only.

Packing information



unit:mm

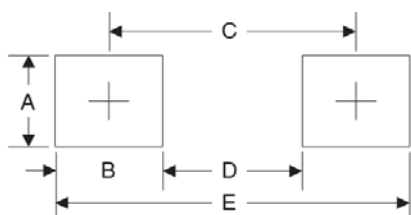
Item	Symbol	Tolerance	SMAF
Carrier width	A	0.1	2.80
Carrier length	B	0.1	4.75
Carrier depth	C	0.1	1.42
Sprocket hole	d	0.05	1.50
7" Reel outside diameter	D	2.0	178.00
7" Reel inner diameter	D1	min	54.40
Feed hole diameter	D2	0.5	13.00
Sprocket hole position	E	0.1	1.75
Punch hole position	F	0.1	5.05
Punch hole pitch	P	0.1	4.00
Sprocket hole pitch	P0	0.1	4.00
Embossment center	P1	0.1	2.00
Overall tape thickness	T	0.1	0.30
Tape width	W	0.3	8.00
Reel width	W1	1.0	12.30

Note: Devices are packed in accordance with EIA standard RS-481-A and specifications listed above.

Reel packing

PACKAGE	REEL SIZE	REEL (pcs)	COMPONENT SPACING (m/m)	BOX (pcs)	INNER BOX (m/m)	REEL DIA, (m/m)	CARTON SIZE (m/m)	CARTON (pcs)	APPROX. GROSS WEIGHT (kg)
SMAF	7"	3,000	4.0	6,000	210*208*203	178	400*265*400	120,000	10.0

Suggested Pad Layout



Symbol	Unit (mm)	Unit (inch)
A	1.8	0.071
B	1.6	0.063
C	3.8	0.150
D	2.2	0.087
E	5.4	0.213