

SM320AF thru SM3100AF

Schottky Barrier Rectifiers

Reverse Voltage 20 to100V Forward Current 3.0A

FEATURES

- * Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- * Low power loss,high efficiency
- * For use in low voltage high frequency inverters, free wheeling,and polarity protection applications
- * Guardring for over voltage protection
- * High temperature soldering guaranteed: 260°C/10 seconds at terminals

Mechanical Data

Case: JEDEC SMA-FL

molded plastic over glass die

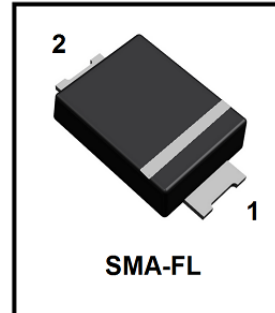
Terminals: Plated leads, solderable per MIL-STD-750, Method 2026

Polarity: Color band denotes cathode end

Mounting Position: Any

Weight: 28mg

Handling precaution:None



We declare that the material of product is Halogen free (green epoxy compound)

1. Electrical Characteristics

Maximum & Thermal Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Parameter Symbol	Symbol	SM320 AF	SM330 AF	SM340 AF	SM345 AF	SM350 AF	SM360 AF	SM380 AF	SM3100 AF	Unit
Device marking code		S32	S33	S34	S345	S35	S36	S38	S310	
Maximum repetitive peak reverse voltage	VRRM	20	30	40	45	50	60	80	100	V
Maximum RMS voltage	VRMS	14	21	28	31.5	35	42	56	70	V
Maximum DC blocking voltage	VDC	20	30	40	45	50	60	80	100	V
Maximum average forward rectified current lead length (See fig. 1) at TC = 75°C	IF(AV)	3.0								A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	100								A
Typical thermal resistance (Note 1)	RθJA RθJC RθJL	150 20 35								°C/W
Operating junction and storage temperature range	TJ,TSTG	-40 to +150								°C

Electrical Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Parameter Symbol	Symbol	SM320 AF	SM330 AF	SM340 AF	SM345 AF	SM350 AF	SM360 AF	SM380 AF	SM3100 AF	Unit	
Maximum instantaneous forward voltage at 3.0A	VF	0.55			0.70		0.85			V	
Maximum DC reverse current TA = 25°C at rated DC blocking voltage TJ = 100°C	IR	0.5					30.0				mA
Typical junction capacitance at 4.0V, 1MHz	CJ	160								pF	

NOTES:

1. 8.0mm² (.013mm thick) land areas

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2. Ratings and Characteristic Curves (TA = 25°C unless otherwise noted)

Fig. 1 - Forward Current Derating Curve

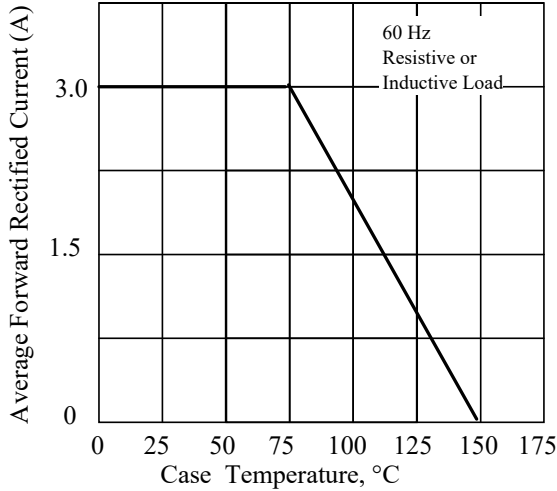


Fig. 2 - Maximum Non-repetitive Peak Forward Surge Current

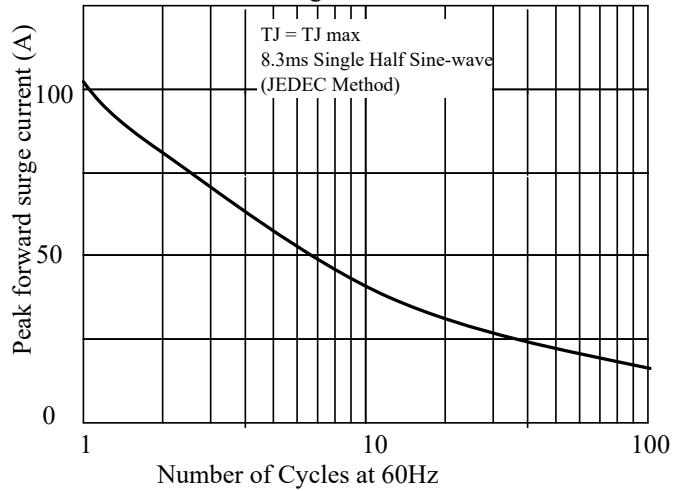


Fig 3. - Typical Instantaneous Forward Characteristics

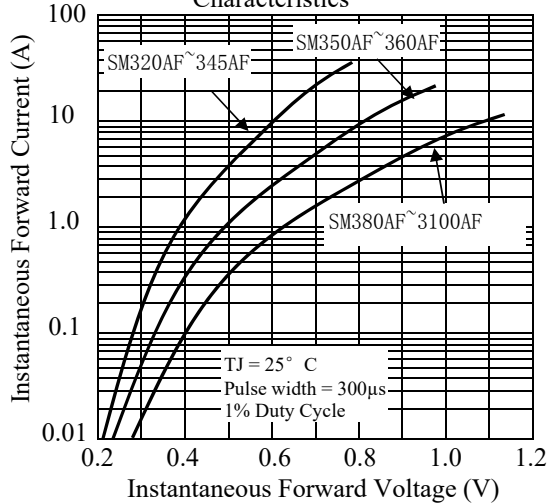


Fig 4. - Typical Reverse Characteristics

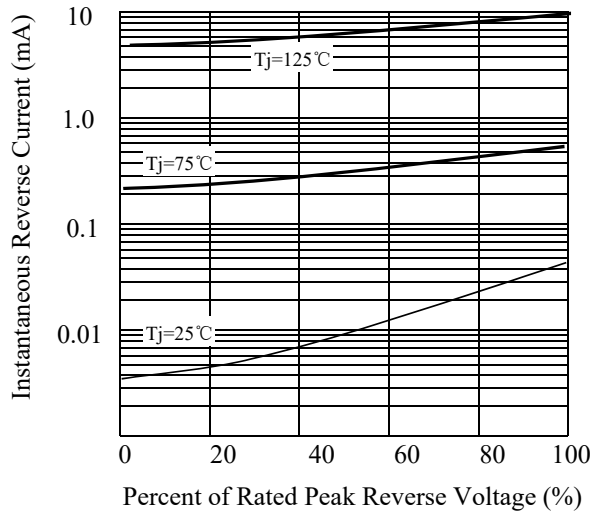


Fig 5. - typical transient thermal impedance

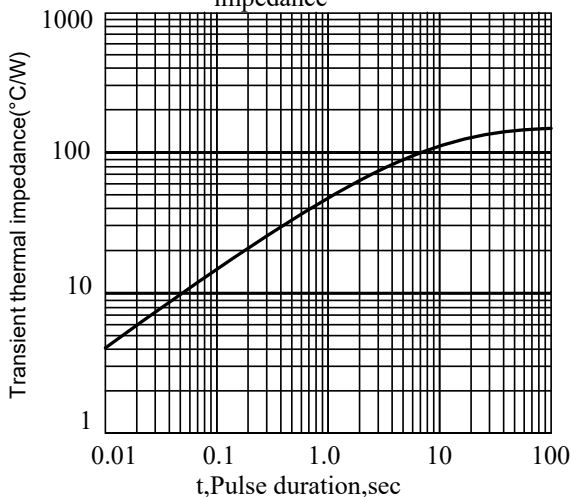
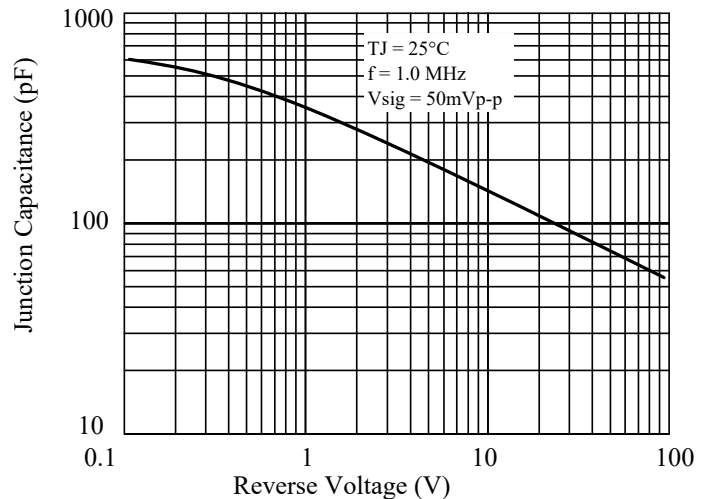


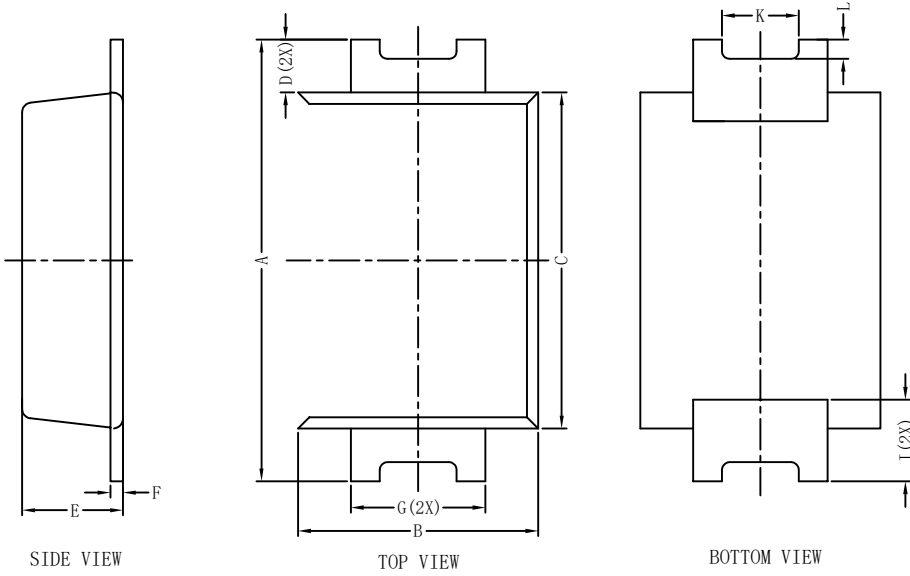
Fig 6. - Typical Junction Capacitance



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3. OUTLINE AND DIMENSIONS

SMA-FL

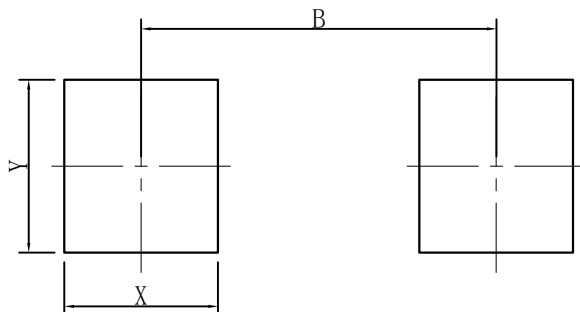


SMA-FL			
DIM	MIN	MAX	Typ.
A	4.40	4.80	4.60
B	2.30	2.70	2.60
C	3.30	3.70	3.50
D			0.55
E	0.90	1.20	1.05
F	0.11	0.21	0.17
G	1.30	1.50	1.40
I	-	-	0.90
K	-	-	0.80
L	-	-	0.20
All Dimensions in mm			

GENERAL NOTES

- 1.Top package surface finish Ra0.4±0.2um
- 2.Bottom package surface finish Ra0.7±0.2um

4. SOLDERING FOOTPRINT



SMA-FL	
DIM	(mm)
X	1.60
Y	1.80
B	3.70

DISCLAIMER

- Curve guarantee in the specification. The curve of test items with electric parameter is used as quality guarantee. The curve of test items without electric parameter is used as reference only.
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