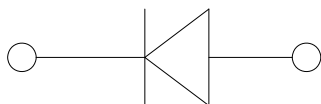


Surface Mount Schottky Rectifier



Features

- Low profile package
- Ideal for automated placement
- Guardring for overvoltage protection
- Low power losses, high efficiency
- High forward surge capability
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260 °C

Typical Applications

For use in low voltage high frequency inverters, freewheeling, DC/DC converters, and polarity protection applications.

Mechanical Data

- **Package:** SOD-323FL
Molding compound meets UL 94 V-0 flammability rating, -compliant, halogen-free
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Cathode line denotes the cathode end

■Maximum Ratings (T_a=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	FM16	FM110	FM115	FM120
Device marking code			FM16	FM110	FM115	FM120
Repetitive peak reverse voltage	V _{RRM}	V	60	100	150	200
Average rectified output current @60Hz sine wave, Resistance load, TC (FIG.1)	I _O	A	1.0			
Surge(non-repetitive)forward current @ 60Hz half-sine wave,1 cycle, T _j =25°C	I _{FSM}	A	25			
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, T _j =25°C			50			
Current squared time @1ms≤t≤8.3ms T _j =25°C, Rating of per diode	I ² t	A ² S	2.6			
Typical junction capacitance @4V,1MHz	C _j	pF	40			
Storage temperature	T _{stg}	°C	-55 ~+175			
Junction temperature	T _j	°C	-55 ~+150		-55 ~+175	

■Electrical Characteristics (T_a=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	FM16	FM110	FM115	FM120
Peak Forward Voltage	V _F	V	I _{FM} =1.0A	0.70	0.85	0.90	
Maximum DC reverse current at rated DC blocking voltage per diode @ V _{RM} =V _{RRM}	I _{RRM}	mA	T _J =25°C	0.20			
			T _J =125°C	30			

Note1:Pulse test:300uS pulse width,1% duty cycle

Note2:Pulse test:pulse width 40mS

FM16 THRU FM120

■ Thermal Characteristics ($T_a=25^{\circ}\text{C}$ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	FM16	FM110	FM115	FM120
Thermal Resistance	$R_{\theta J-A}$	$^{\circ}\text{C/W}$	90 ⁽¹⁾			
	$R_{\theta J-C}$		46 ⁽¹⁾			

Note:

(1) Thermal resistance between junction and ambient and between junction and lead mounted on P.C.B with 3mm*3mm copper pad areas.

■ Characteristics (Typical)

FIG1: I_o - T_c Curve

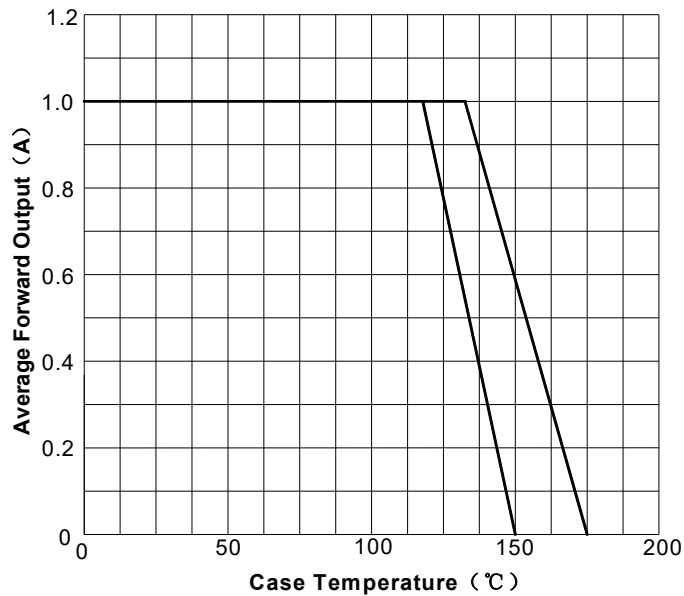


FIG2: Surge Forward Current Capability

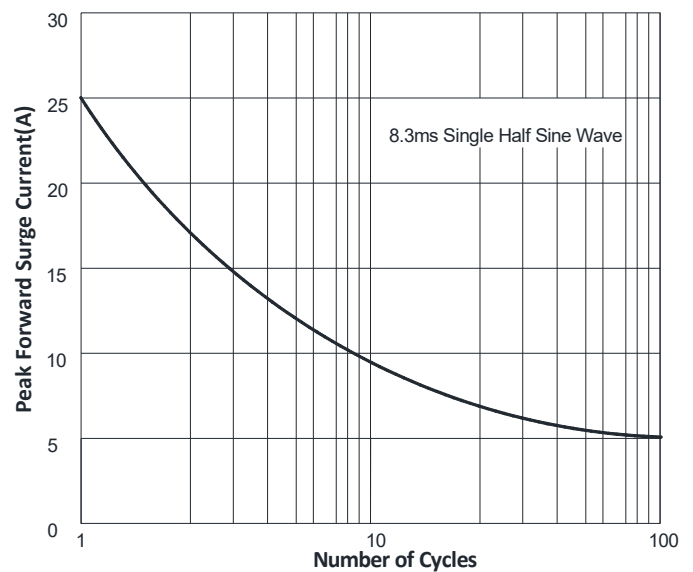


FIG3: Forward Voltage

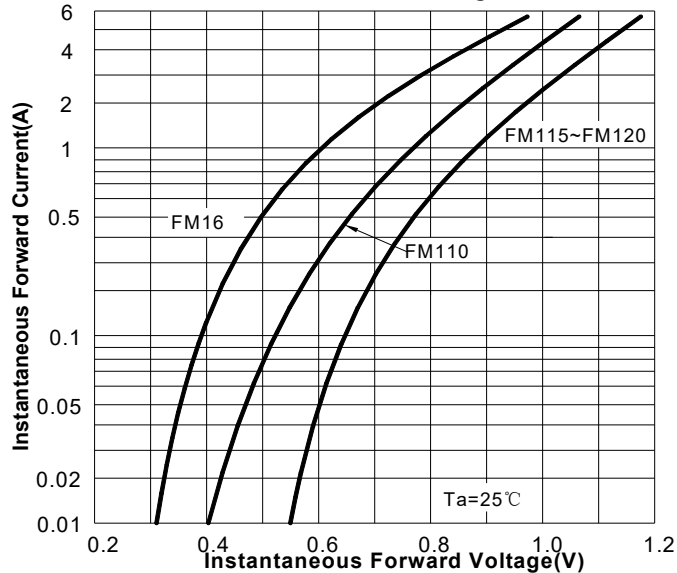
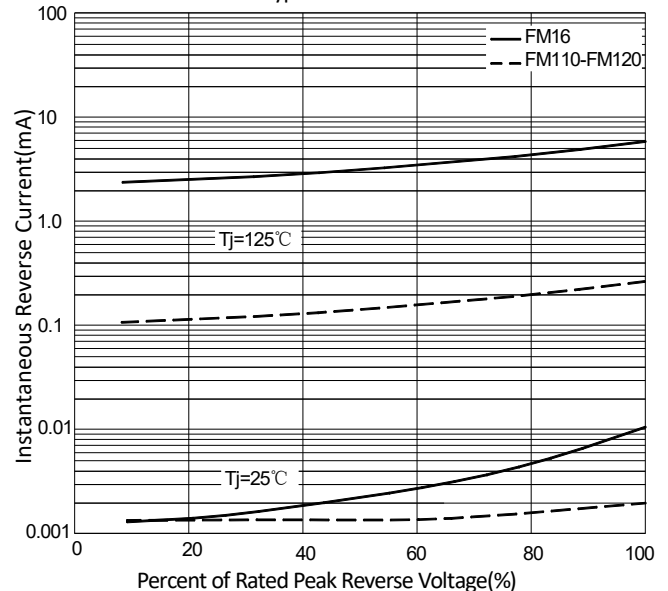
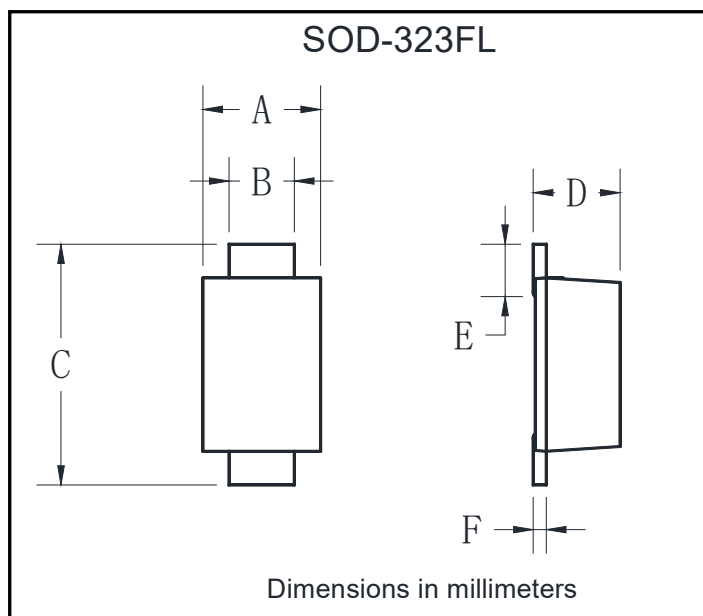


FIG4: Typical Reverse Characteristics

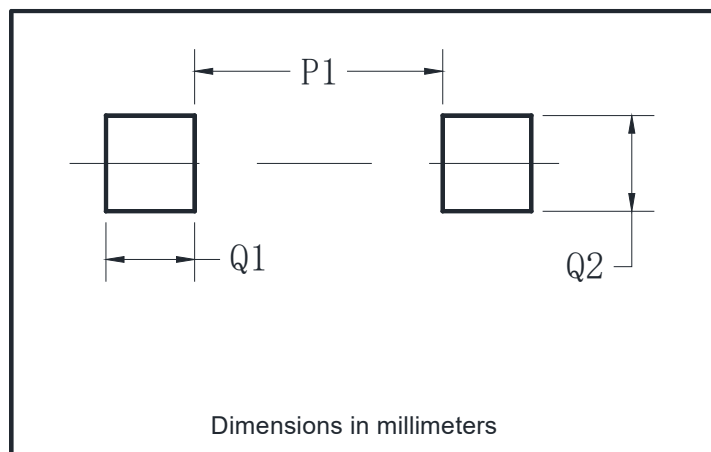


■ Outline Dimensions



SOD-323FL		
Dim	Min	Max
A	1.05	1.45
B	0.90	1.15
C	2.30	2.70
D	0.80	1.20
E	0.25	0.70
F	0.05	0.25

■ Suggested pad layout



SOD-323FL	
Dim	Millimeters
P1	1.30
Q1	1.00
Q2	1.50

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