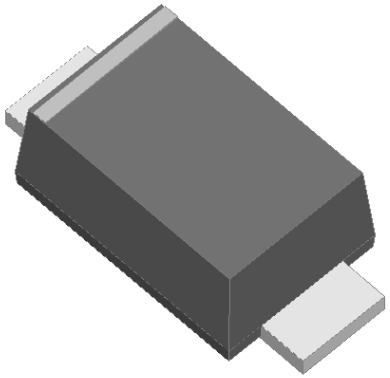
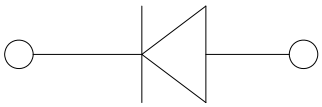
Surface Mount Schottky Rectifier





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 Date

- **Package:** SOD-323FL
  Molding compound meets UL 94 V-0 flammability rating, RoHS-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℃ 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, Tj=25℃	I_{FSM}	A	25			
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, Tj=25℃			50			
Current squared time @1ms≤t≤8.3ms Tj =25℃，Rating of per diode	I^2t	A^2S	2.6			
Typical junction capacitance @4V,1MHz	C_j	pF	40			
Storage temperature	T_{stg}	℃	-55 ~+175			
Junction temperature	T_j	℃	-55 ~+125	-55 ~+175		

■Electrical Characteristics (T_a=25℃ 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℃	0.20			
			T_j =125℃	30			

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

Note2:Pulse test:pulse widh 40mS

■Thermal Characteristics (T_a=25℃ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	FM16	FM110	FM115	FM120
Thermal Resistance	$R_{\theta J-A}$	℃/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:Io-T c Curve

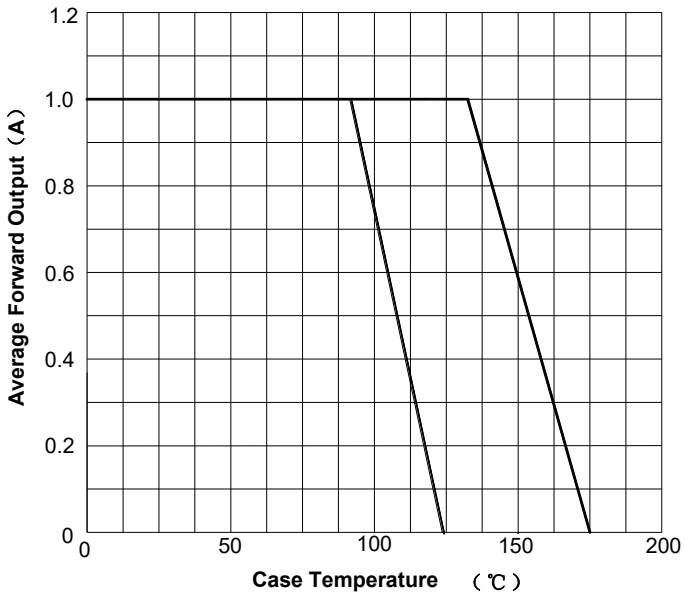


FIG2：Surge Forward Current Capability

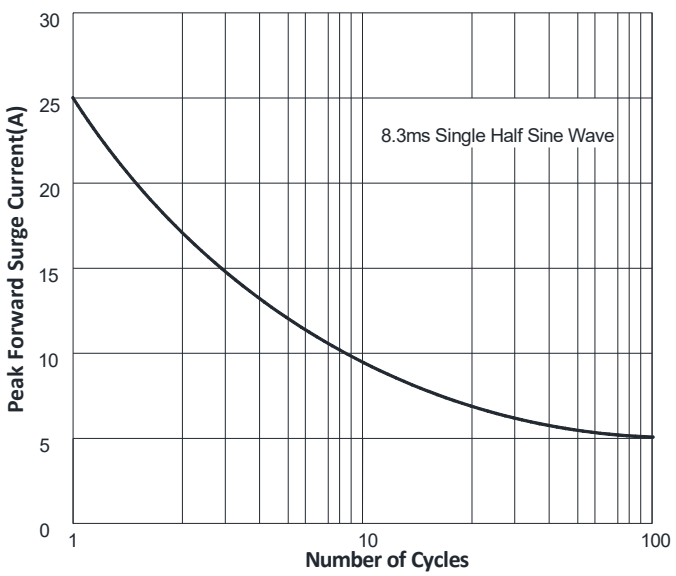


FIG3： Forward Voltage

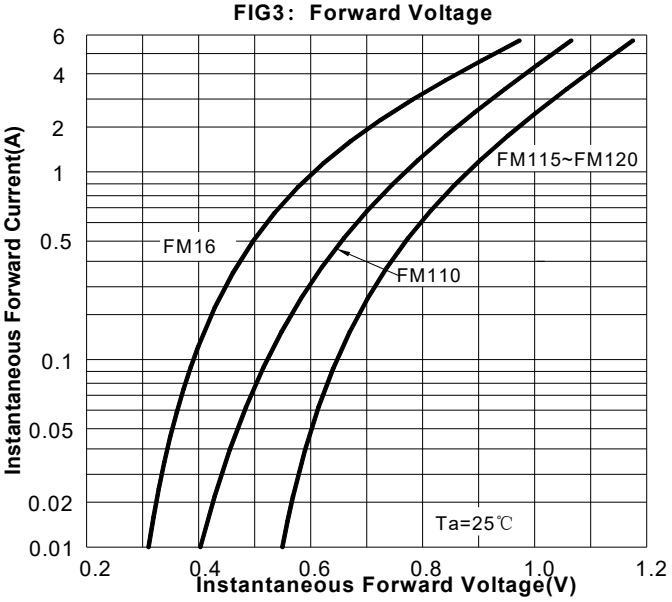
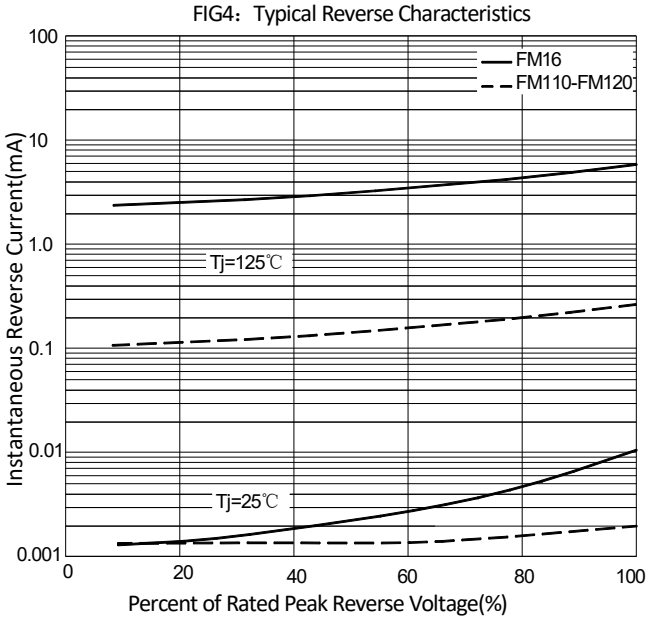
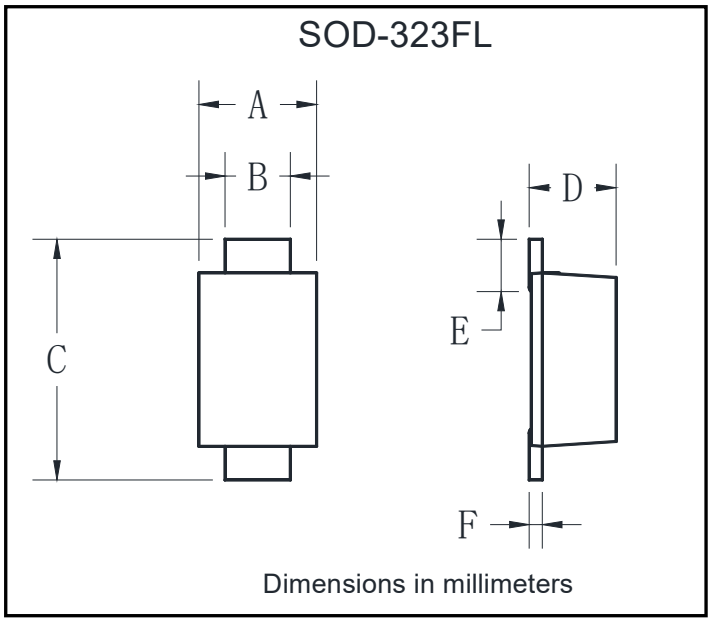


FIG4：Typical Reverse Characteristics

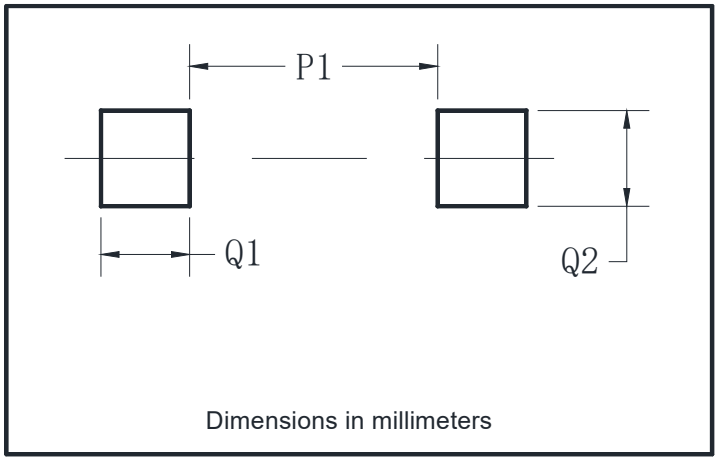


■ Outline Dimensions



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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