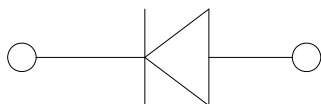


Surface Mount Schottky Rectifier



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_j=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	FM14
Device marking code			FM14
Repetitive peak reverse voltage	VRRM	V	40
Average rectified output current @60Hz sine wave, Resistance load, TC (FIG.1)	IO	A	1.0
Surge(non-repetitive)forward current @ 60Hz half-sine wave, 1 cycle, T _j =25°C	IFSM	A	30
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, T _j =25°C			60
Current squared time @1ms≤t≤8.3ms T _j =25°C, Rating of per diode	I ² t	A ² S	3.74
Typical junction capacitance @Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C	C _j	pF	43
Storage temperature	T _{stg}	°C	-55 ~+125
Junction temperature	T _j	°C	-55 ~+125

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

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	Min	Typ	Max
Peak Forward Voltage	V _{FM}	V	I _{FM} =1.0A T _j =25°C	-	0.48	0.55
			I _{FM} =1.0A T _j =100°C	-	-	0.50
Maximum DC reverse current at rated DC blocking voltage per diode	I _{RRM1}	mA	V _{RM} =V _{RRM} T _j =25°C	-	-	0.5
	I _{RRM2}		V _{RM} =V _{RRM} T _j =100°C	-	-	10

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

Note2:Pulse test:pulse width 40mS

■Thermal Characteristics (T_j=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	FM14
Thermal Resistance	R _{θJ-A}	°C/W	90 ¹⁾
	R _{θJ-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

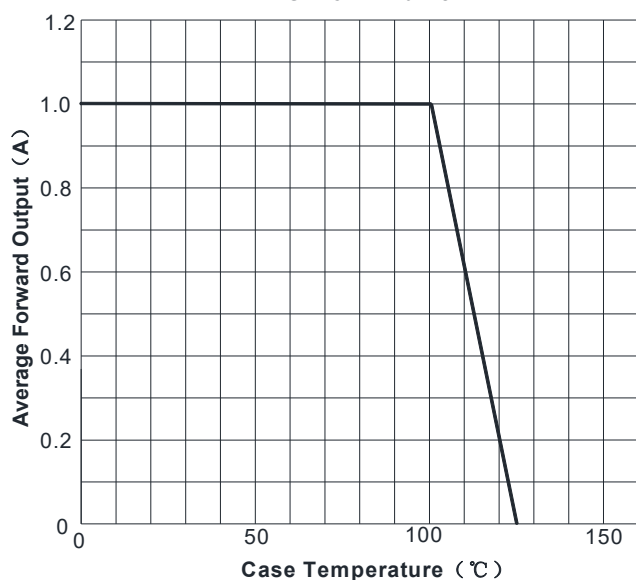


FIG2: Surge Forward Current Capability

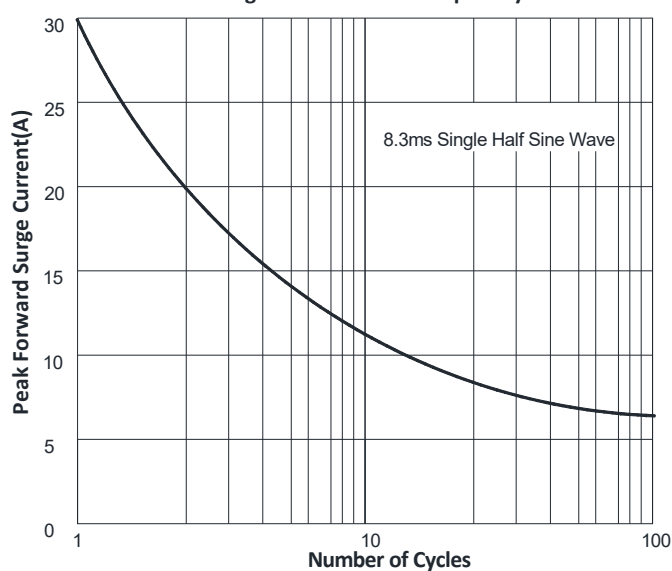


FIG.3: Forward Voltage

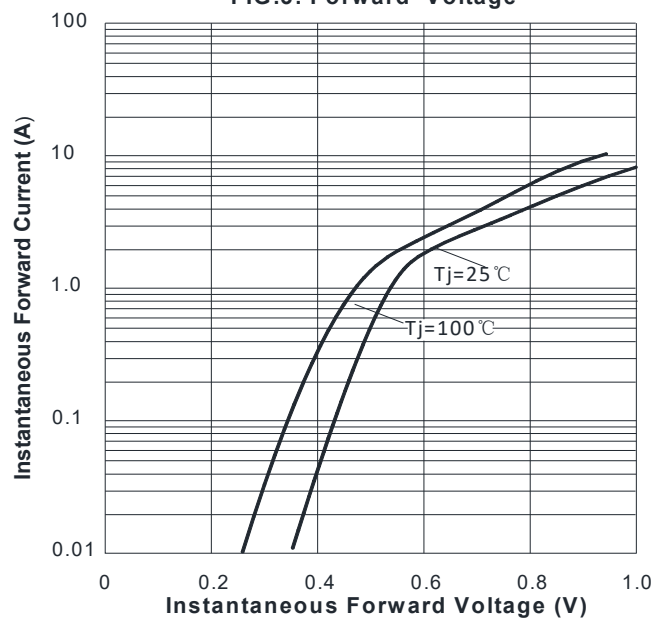
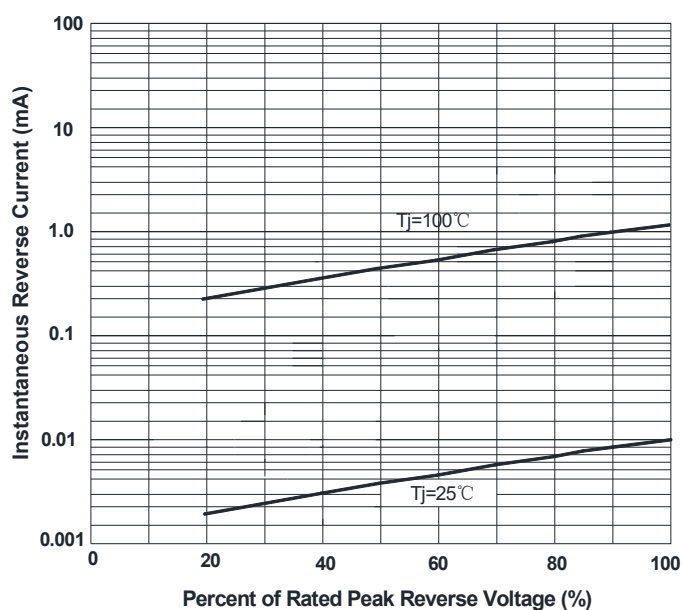
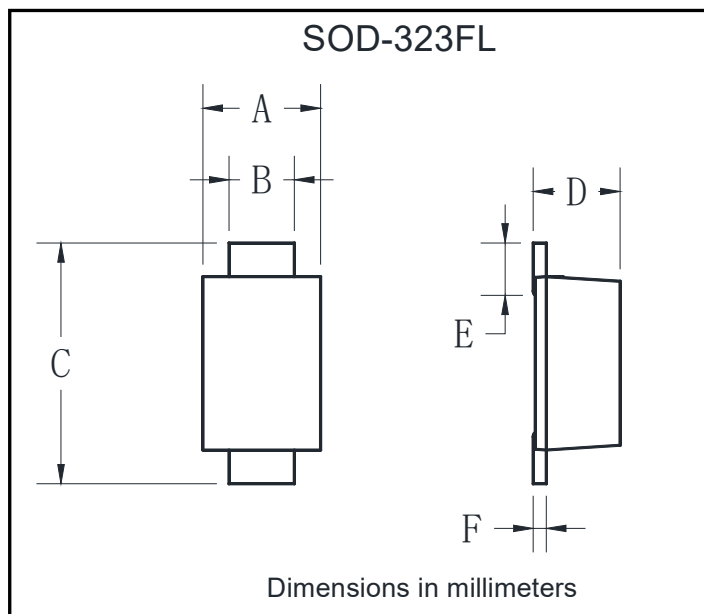


FIG.4: Instantaneous Reverse Characteristics

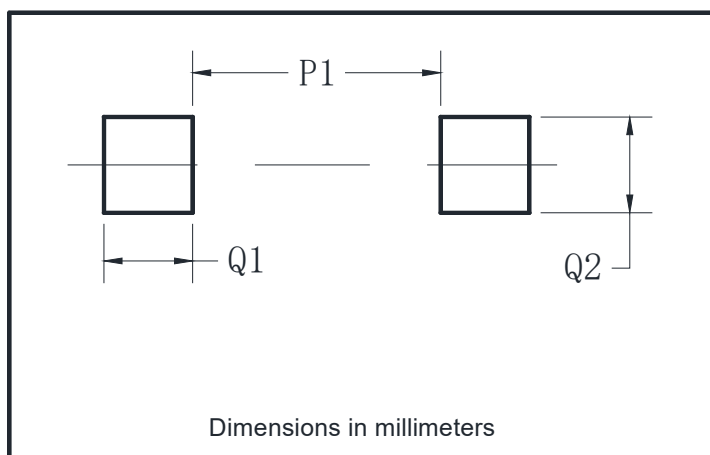


■ Outline Dimensions



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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