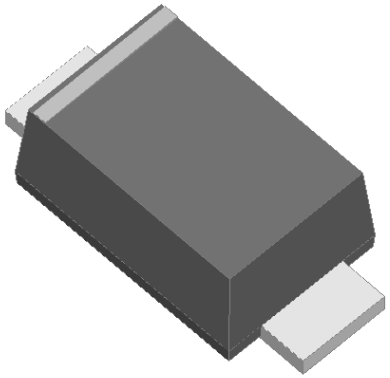
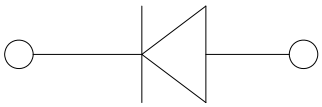
Surface Mount Schottky Rectifier





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 (Tj=25℃ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	FM14
Device marking code			**FM14**
Repetitive peak reverse voltage	V_{RRM}	V	40
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	30
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, Tj=25℃			60
Current squared time @1ms≤t≤8.3ms Tj =25℃，Rating of per diode	I2t	A2S	3.74
Typical junction capacitance @Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C	Cj	pF	43
Storage temperature	T_{stg}	℃	-55 ~+125
Junction temperature	T_j	℃	-55 ~+125

■Electrical Characteristics（Tj=25℃ Unless otherwise specified）

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

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

Note2:Pulse test:pulse widh 40mS

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

PARAMETER	SYMBOL	UNIT	FM14
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-Tc Curve

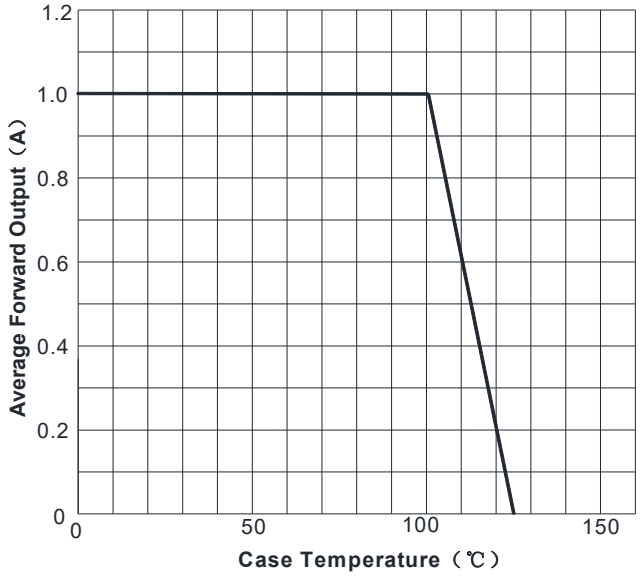


FIG2：Surge Forward Current Capability

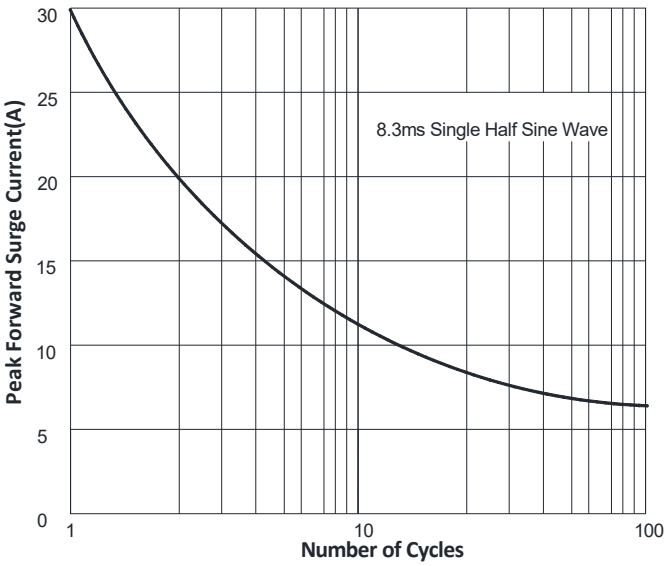


FIG.3: Forward Voltage

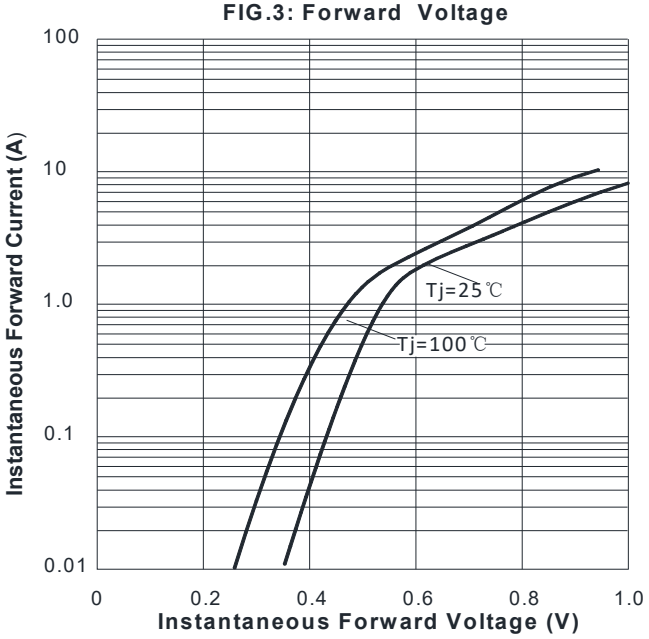
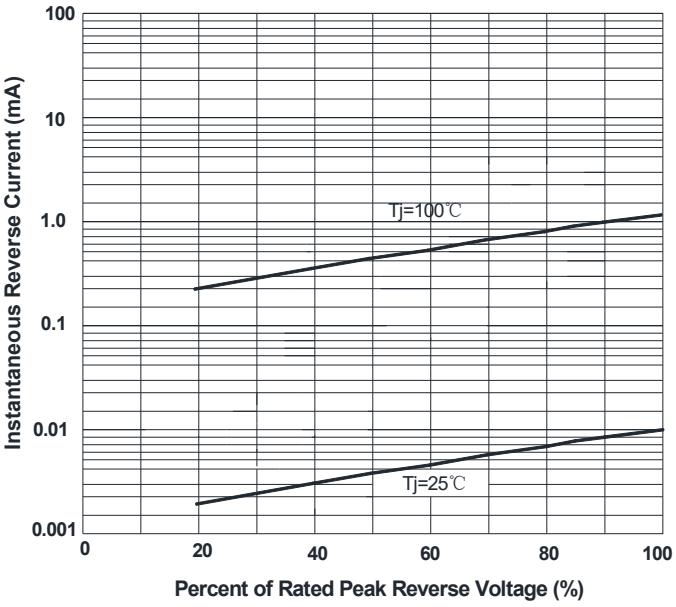
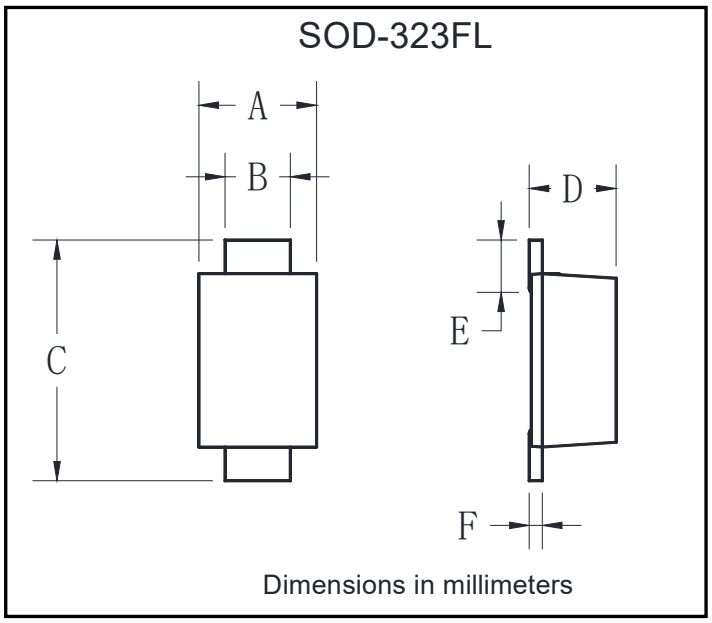


FIG.4: Instantaneous Reverse Characteristics

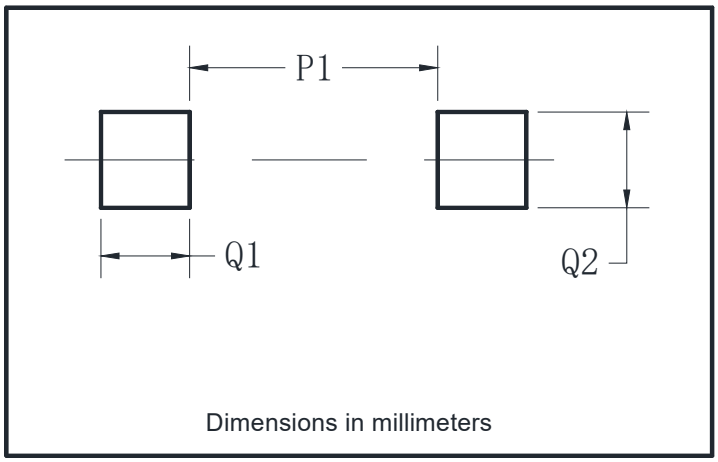


■ Outline Dimensions



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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