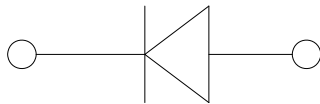


## Surface Mount Schottky Rectifier



### 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-323HT  
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<sub>j</sub>=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	FM22T
Device marking code			FM22T
Repetitive peak reverse voltage	VRRM	V	20
Average rectified output current @60Hz sine wave, Resistance load, T <sub>c</sub> (FIG.1)	I <sub>O</sub>	A	2.0
Surge(non-repetitive)forward current @ 60Hz half-sine wave, 1 cycle, T <sub>j</sub> =25°C	IFSM	A	30
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, T <sub>j</sub> =25°C			60
Current squared time @1ms≤t≤8.3ms T <sub>j</sub> =25°C, Rating of per diode	I <sup>2</sup> t	A <sup>2</sup> S	3.74
Typical junction capacitance @Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C	C <sub>j</sub>	pF	72
Storage temperature	T <sub>stg</sub>	°C	-55 ~+150
Junction temperature	T <sub>j</sub>	°C	-55 ~+125



# FM22T

## ■Electrical Characteristics (T<sub>j</sub>=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	Min	Typ	Max
Peak Forward Voltage	V <sub>FM</sub>	V	I <sub>FM</sub> =2.0A T <sub>j</sub> =25°C	-	0.47	0.55
			I <sub>FM</sub> =2.0A T <sub>j</sub> =100°C	-	-	0.50
Maximum DC reverse current at rated DC blocking voltage per diode	I <sub>RRM1</sub>	mA	V <sub>RM</sub> =V <sub>RRM</sub> T <sub>j</sub> =25°C	-	-	0.2
	I <sub>RRM2</sub>		V <sub>RM</sub> =V <sub>RRM</sub> T <sub>j</sub> =100°C	-	-	10

## ■Thermal Characteristics (T<sub>j</sub>=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	FM22T
Thermal Resistance	R <sub>θJ-A</sub>	°C/W	260 <sup>(1)</sup>
	R <sub>θJ-L</sub>		42 <sup>(1)</sup>

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)

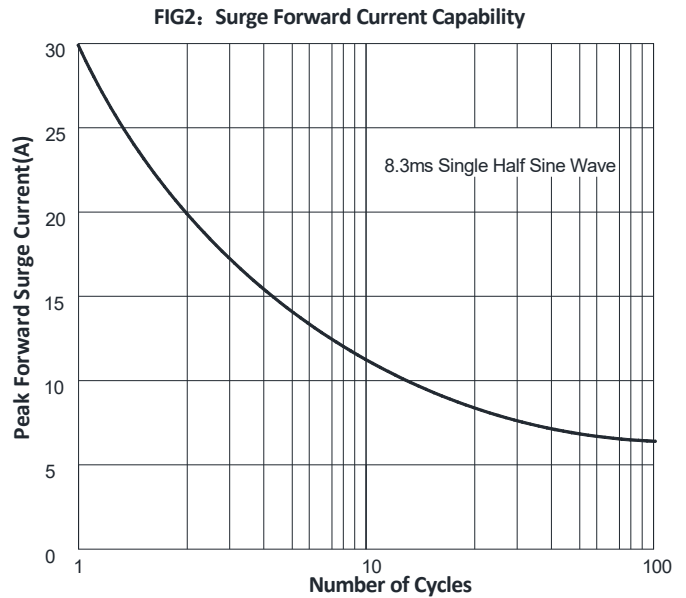
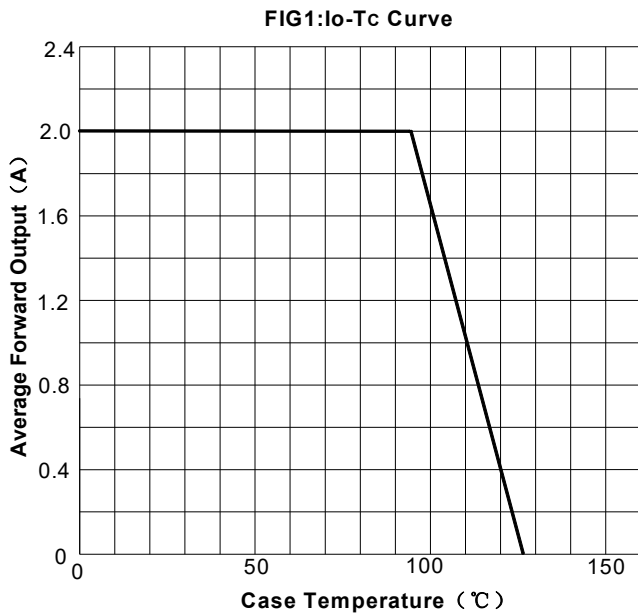




FIG.3: Forward Voltage

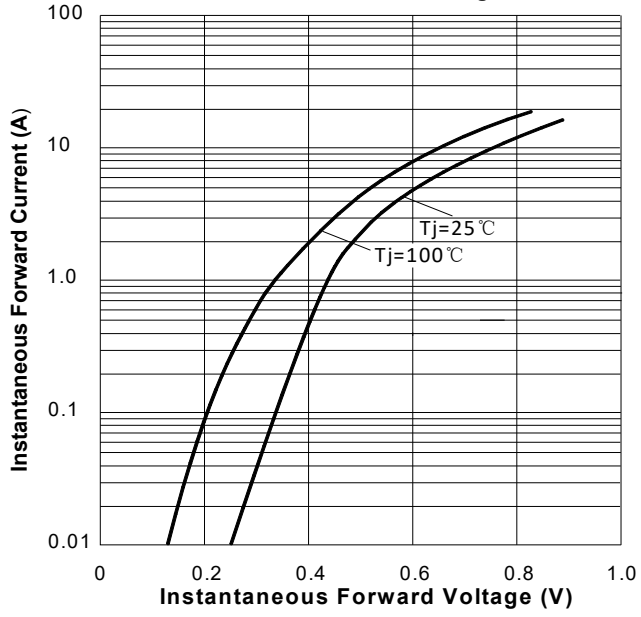
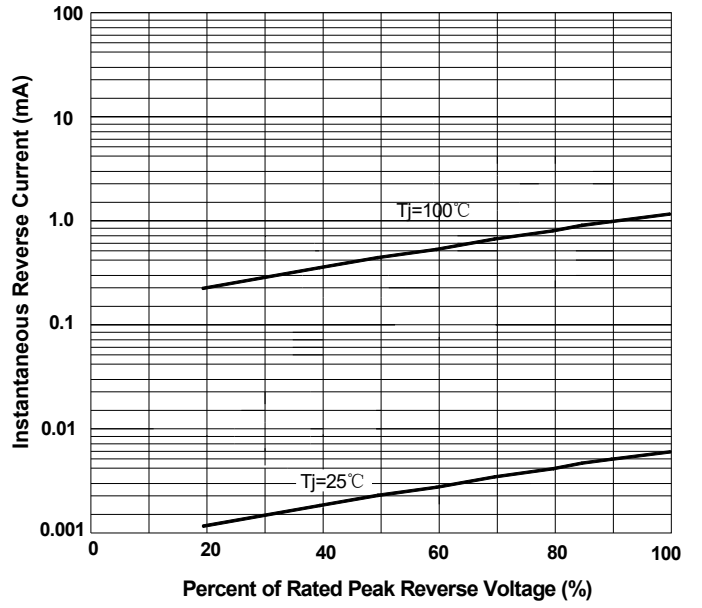
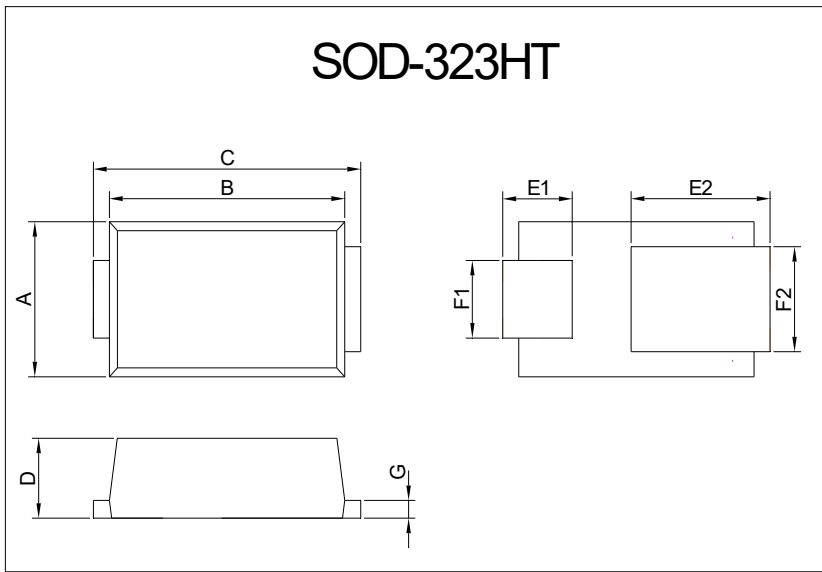


FIG.4: Instantaneous Reverse Characteristics



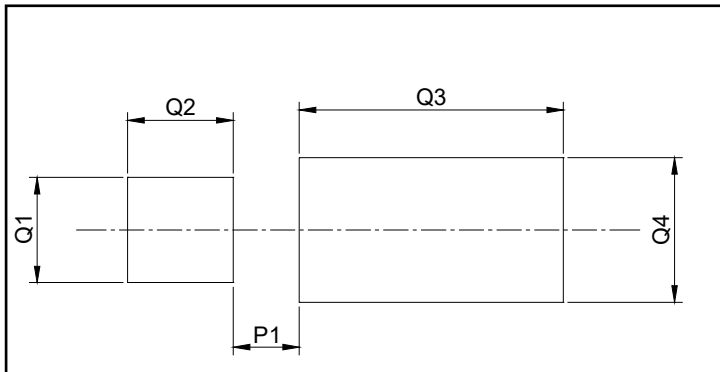


## ■ Outline Dimensions



SOD-323HT		
Dim	Min	Max
A	1.20	1.40
B	2.10	2.30
C	2.30	2.70
D	0.63	0.73
E1	0.55	0.75
E2	1.10	1.50
F1	0.55	0.75
F2	0.78	0.98
G	0.12	0.27

## ■ Suggested pad layout



SOD-323HT	
Dim	Millimeters
P1	0.5
Q1	0.8
Q2	0.8
Q3	2
Q4	1.1



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