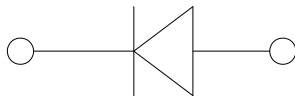


## Surface Mount Schottky Rectifier



### 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	FM14T
Device marking code			14T
Repetitive peak reverse voltage	VRRM	V	40
Maximum RMS Voltage	VRMS	V	28
Average rectified output current @60Hz sine wave, Resistance load, T <sub>L</sub> (FIG.1)	I <sub>O</sub>	A	1.0
Surge(non-repetitive)forward current @60Hz half-sine wave,1 cycle, T <sub>j</sub> =25°C	I <sub>FSM</sub>	A	30
Storage temperature	T <sub>stg</sub>	°C	-55 ~+150
Junction temperature	T <sub>j</sub>	°C	-55 ~+125

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

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	FM14T
Maximum instantaneous forward voltage drop per diode	V <sub>F</sub>	V	I <sub>FM</sub> =1.0A	0.55
Maximum DC reverse current at rated DC blocking voltage per diode @ VRM=VRRM	I <sub>RRM</sub>	mA	T <sub>j</sub> =25°C	0.10
			T <sub>j</sub> =100°C	10

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

Note2:Pulse test:pulse width 40mS



# FM14T

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

PARAMETER	SYMBOL	UNIT	FM14T
Thermal Resistance	$R_{\theta J-A}$	$^{\circ}\text{C/W}$	260
	$R_{\theta J-L}$		42

## ■ Characteristics (Typical)

FIG1:  $I_o$ - $T_L$  Curve

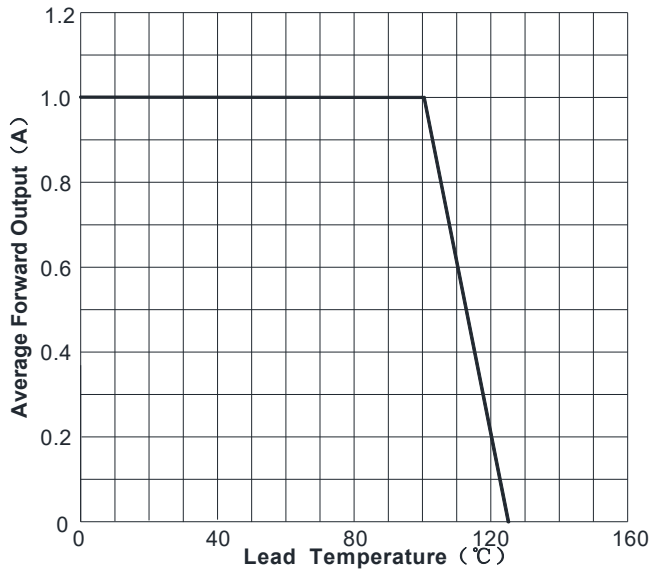


FIG2: Surge Forward Current Capability

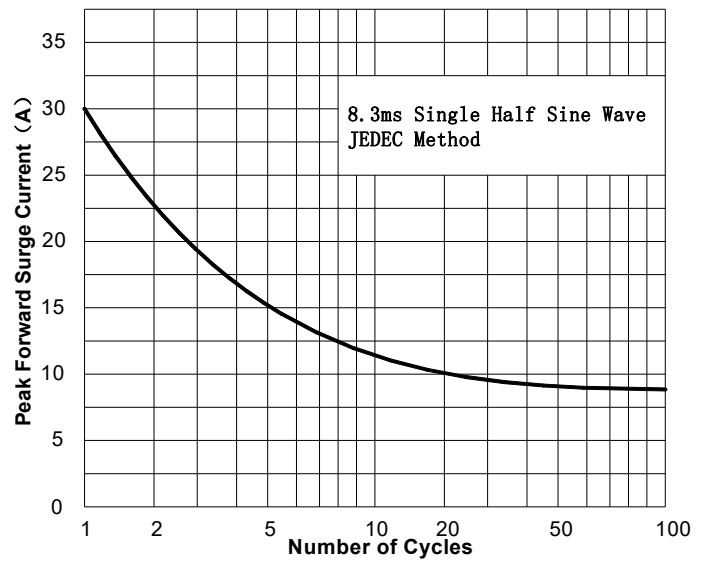


FIG3: Forward Voltage

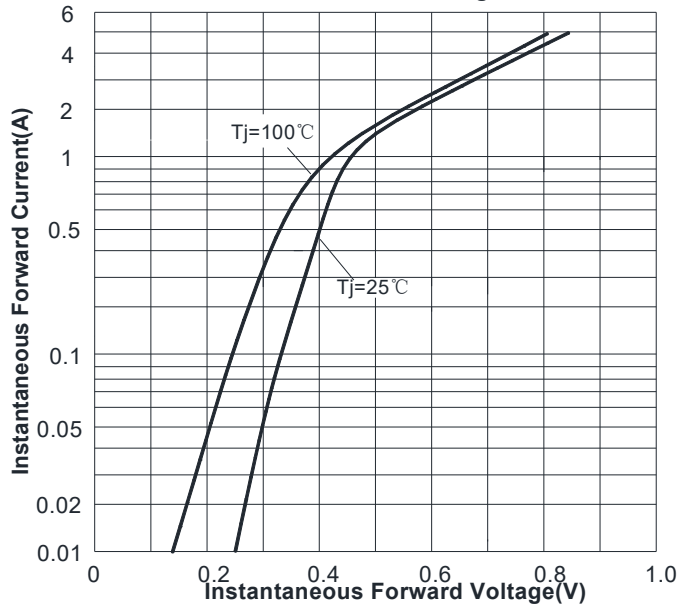
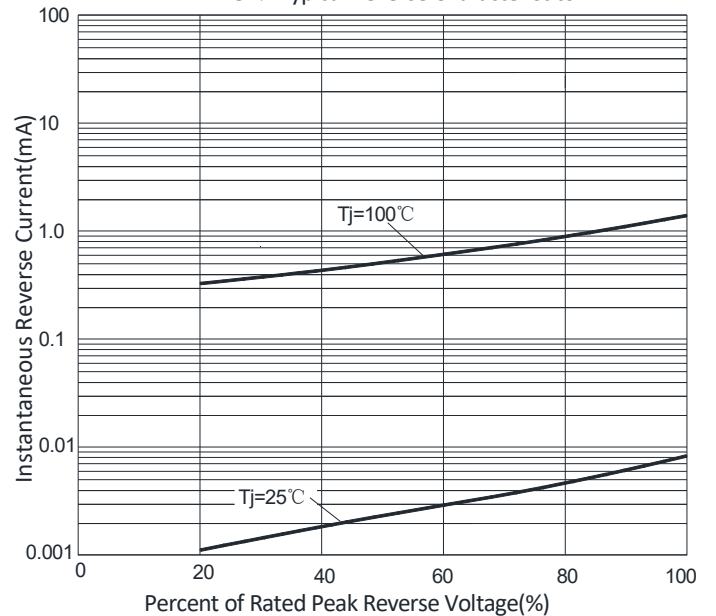
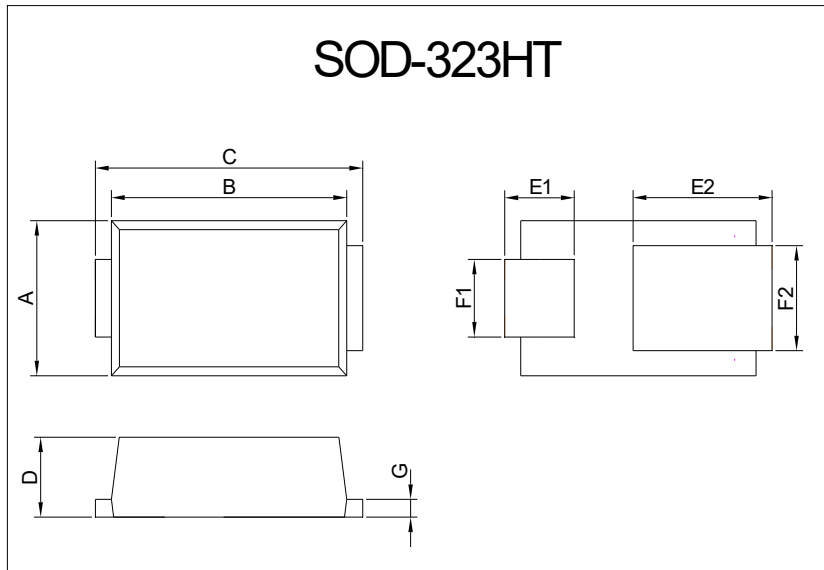


FIG4: Typical Reverse Characteristics

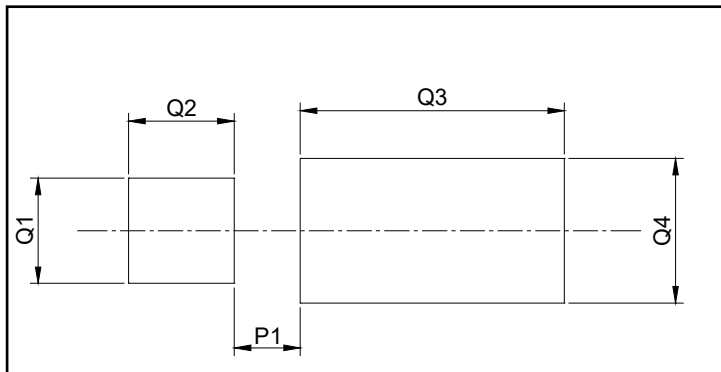


## ■ Outline Dimensions



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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