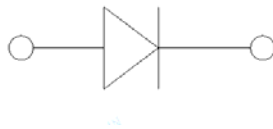


Surface Mount Schottky Rectifier



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
- Part no. with suffix "Q" means AEC-Q101 qualified

Typical Applications

For use in low voltage high frequency inverters, freewheeling, DC/DC converters, automotive 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_j=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	FM16TQ
Device marking code			16T
Repetitive peak reverse voltage	V _{RRM}	V	60
Maximum RMS voltage	V _{RMS}	V	42
Maximum DC blocking voltage	V _{DC}	V	60
Maximum average forward rectified current at T _L (Fig.1)	I _{F (AV)}	A	1.0
Surge(non-repetitive)forward current @60Hz half-sine wave,1 cycle, T _J =25°C	I _{FSM}	A	25
Storage temperature	T _{stg}	°C	-55 ~+150
Junction temperature	T _J	°C	-55 ~+150

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

PARAMETER	SYMBOL	TEST CONDITIONS		TYP	MAX	UNIT
Instantaneous forward voltage	V _F	I _F =1A	T _J =25°C	0.6	0.7	V
			T _J =125°C	-	0.55	
Reverse current	I _R	Rated V _R	T _J =25°C	3	50	uA
			T _J =125°C	-	10	mA
Typical junction capacitance	C _J	V _R =4V,f=1MHz		45	-	pF



FM16TQ

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

PARAMETER	SYMBOL	UNIT	FM16TQ
Thermal resistance	$R_{\theta J-A}$	$^{\circ}\text{C/W}$	270
	$R_{\theta J-C}$		40

Note:

(1) Thermal resistance from junction to ambient and from junction to case mounted on P.C.B without copper pad areas.

■ Characteristics(Typical)

Figure.1: I_O - T_C Curve

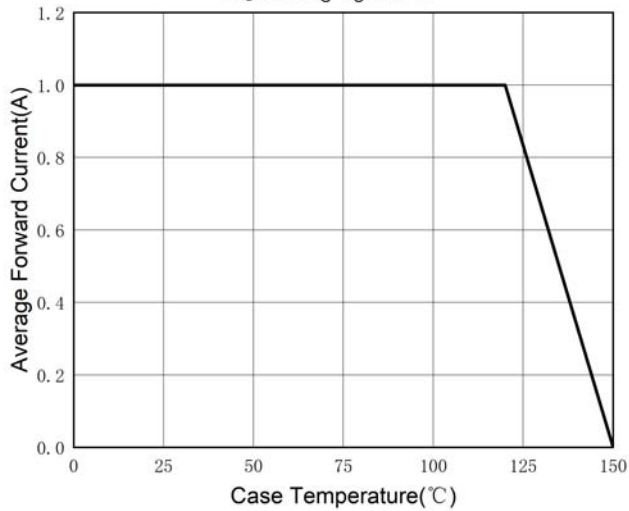


Fig.2: Forward Surge Current Capability

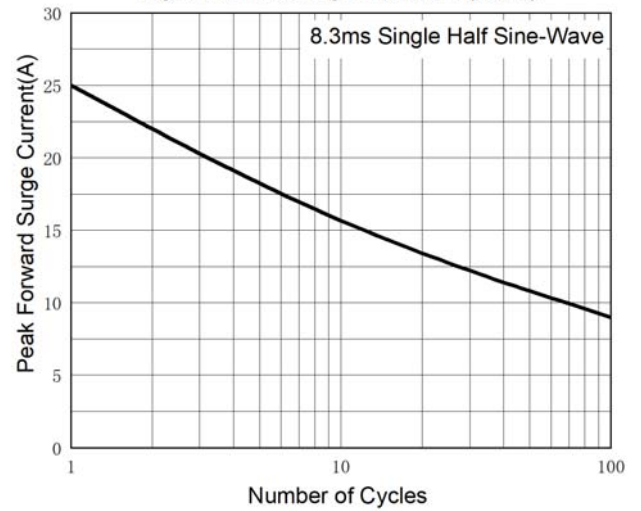


Fig.3: Typical Instantaneous Forward Characteristics

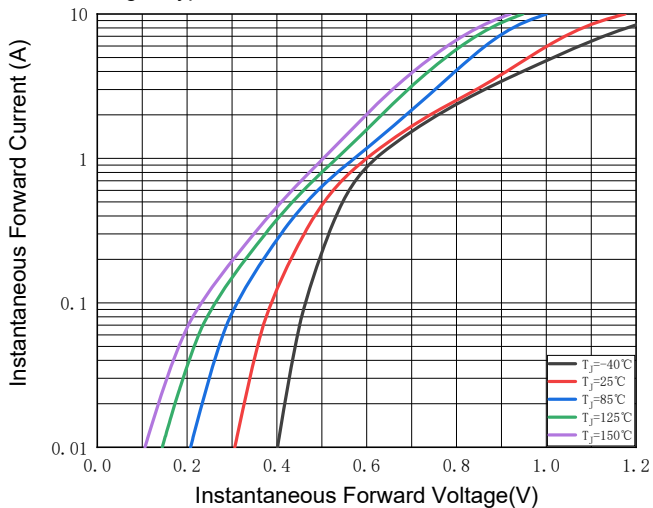
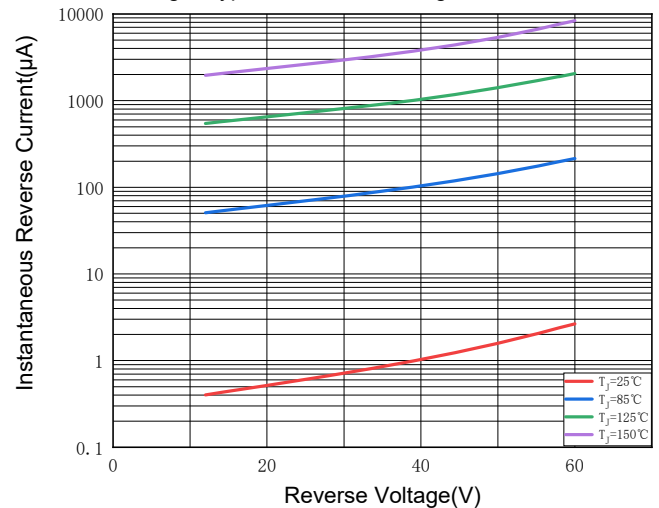


Fig.4: Typical Reverse Leakage Characteristics



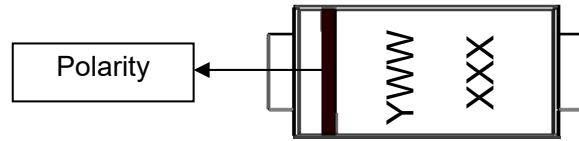
■ Ordering Information (Example)

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
FM16TQ	F1	Approximate 0.0064	3000	120000	7" reel



FM16TQ

■ Marking Information



Note:

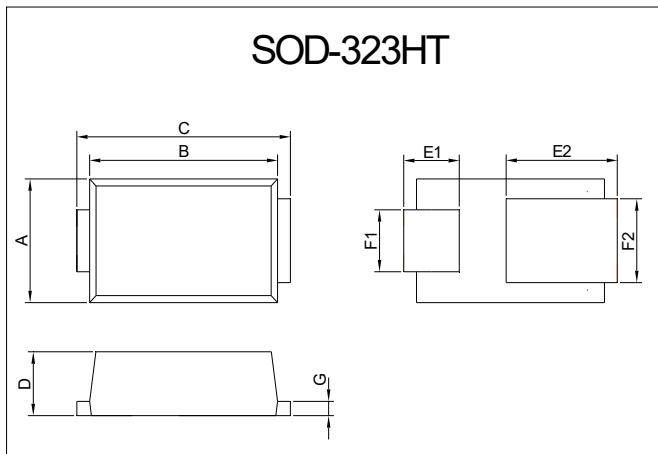
1. All marking is at middle of the product body
2. All marking is in laser printing
3. XXX is marking code, like FM16TQ marking code is 16T
4. Body color: Black
5. YWW is date code, "Y" is year. "WW" is week.

For instance:

The 17th week of 2022, date code is 217

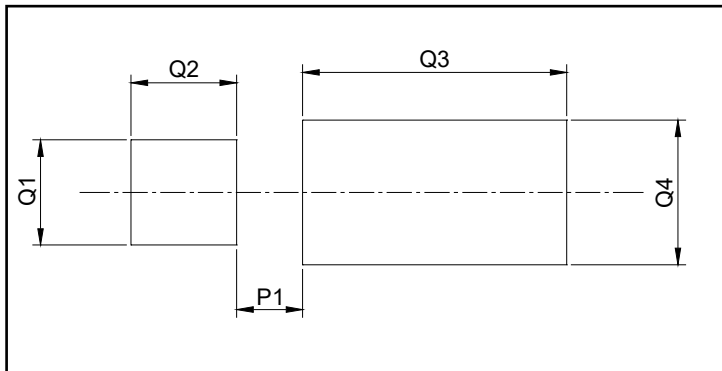
The 17th week of 2023, date code is 317

■ Outline Dimensions



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



Disclaimer

The information presented in this document is for reference only. Yangzhou Yangjie Electronic Technology Co., Ltd. reserves the right to make changes without notice for the specification of the products displayed herein to improve reliability, function or design or otherwise.

The product listed herein is designed to be used with automotive electronics, are not designed for use in medical, lifesaving, lifesustaining, or military. Yangjie or anyone on its behalf, assumes no responsibility or liability for any damages resulting from such improper use of sale.

This publication supersedes & replaces all information previously supplied. For additional information, please visit our website [http:// www.21yangjie.com](http://www.21yangjie.com) , or consult your nearest Yangjie's sales office for further assistance.