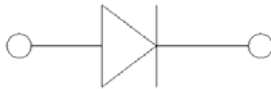
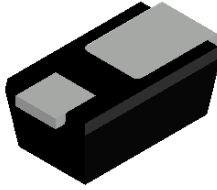
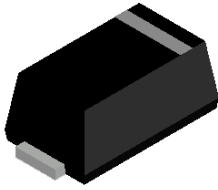


## Surface Mount Schottky Rectifier



### 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 Date

- **Package:** SOD-323HE  
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 ( $T_j=25^\circ\text{C}$ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	FM115EQ
Device marking code			115
Repetitive peak reverse voltage	$V_{RRM}$	V	150
Maximum RMS voltage	$V_{RMS}$	V	105
Maximum DC blocking voltage	$V_{DC}$	V	150
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, $T_j=25^\circ\text{C}$	$I_{FSM}$	A	30
Voltage rate of change (rated $V_R$ )	dV/dt	V/ $\mu\text{s}$	10000
Storage temperature	$T_{stg}$	$^\circ\text{C}$	-55 ~+175
Junction temperature	$T_j$	$^\circ\text{C}$	-55 ~+175

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

PARAMETER	SYMBOL	TEST CONDITIONS	TYP	MAX	UNIT	
Instantaneous forward voltage	$V_F$	$I_F=1\text{A}$	$T_j=25^\circ\text{C}$	0.8	0.9	V
			$T_j=125^\circ\text{C}$	-	0.7	
Reverse current	$I_R$	Rated $V_R$	$T_j=25^\circ\text{C}$	-	1	$\mu\text{A}$
			$T_j=125^\circ\text{C}$	-	50	$\mu\text{A}$
Typical junction capacitance	$C_J$	$V_R=4\text{V}, f=1\text{MHz}$	25	-	pF	



# FM115EQ

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

PARAMETER	SYMBOL	UNIT	FM115EQ
Thermal resistance	$R_{\theta J-A}$	$^\circ\text{C/W}$	260 <sup>(1)</sup>
	$R_{\theta J-L}$		70 <sup>(1)</sup>
	$R_{\theta J-SP}$		10 <sup>(2)</sup>

Note:

- (1) Thermal resistance between junction and ambient and between junction and lead mounted on P.C.B without copper pad areas.
- (2) Thermal resistance between junction and cathode tab solder point.

## ■ Characteristics(Typical)

Fig.1:Forward Current Derating Curve

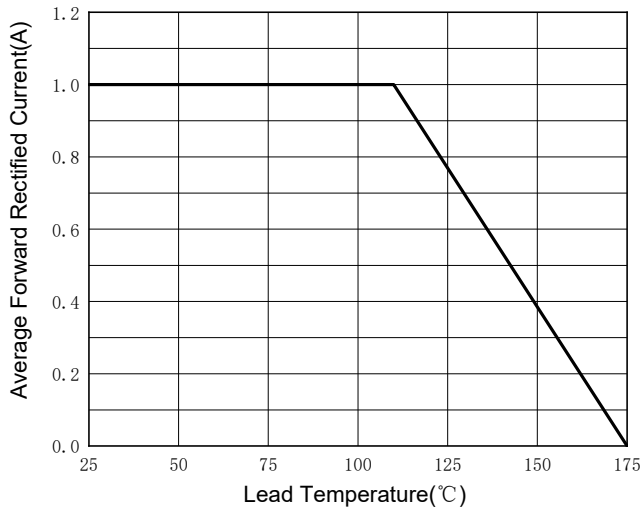


Fig.2:Maximum Non-Repetitive Peak Forward Surge Current

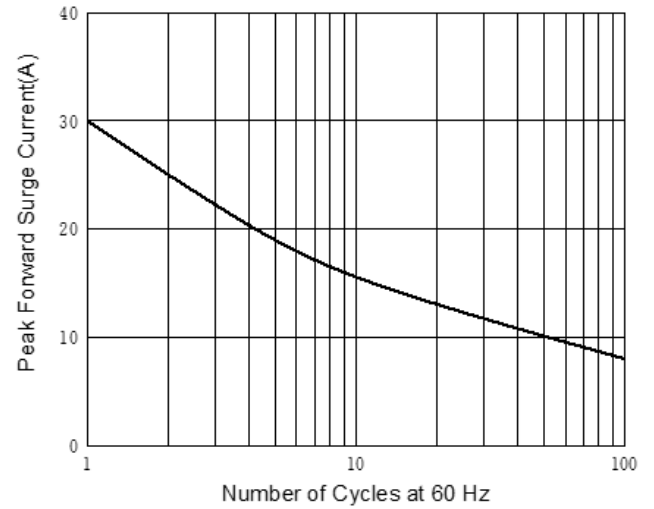


Fig.3:Typical Instantaneous Forward Characteristics

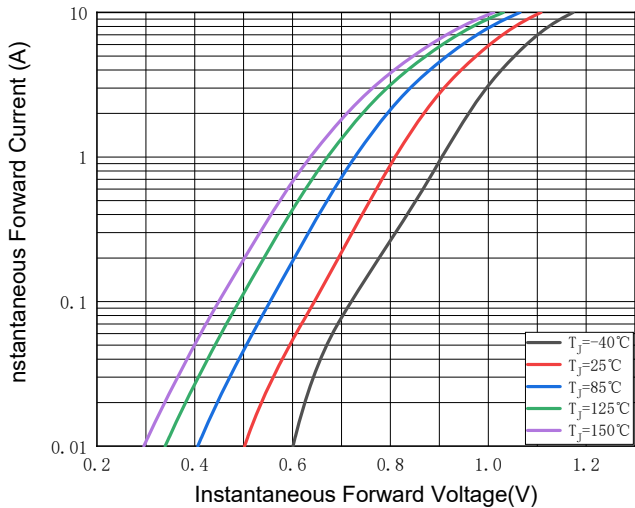
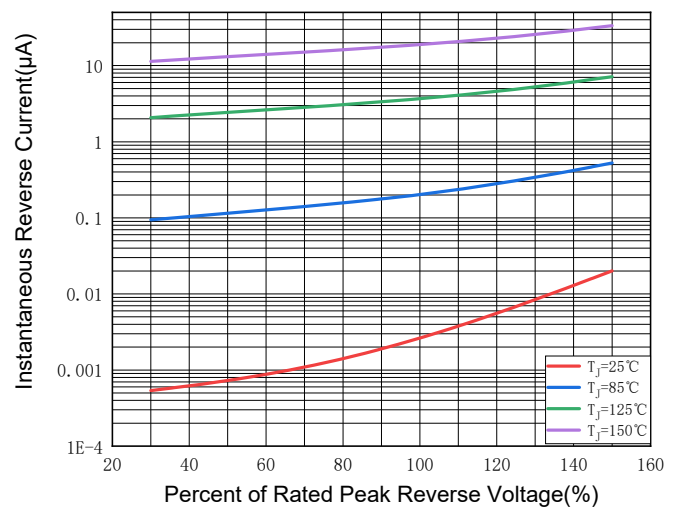


Fig.4:Typical Reverse Leakage Characteristics



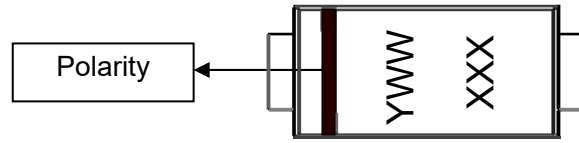
## ■ Ordering Information (Example)

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
FM115EQ	F1	Approximate 0.008	3000	120000	7" reel



# FM115EQ

## ■ Marking Information



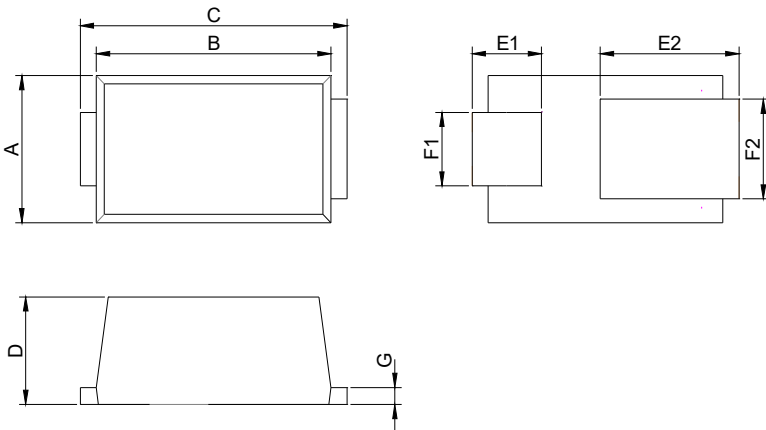
**Note:**

1. All marking is at middle of the product body
2. All marking is in laser printing
3. XXX is marking code, like FM115EQ marking code is 115
4. Body color: Black
5. YWW is date code, "Y" is year. "WW" is week.

For instance:

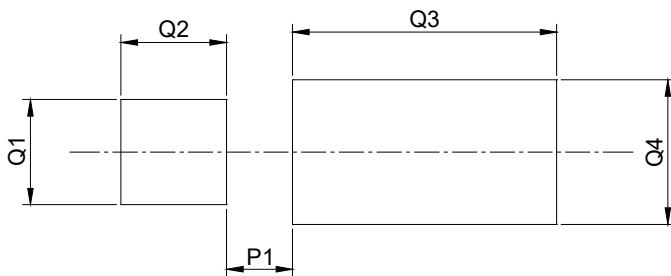
The 17<sup>th</sup> week of 2022, date code is 217  
 The 17<sup>th</sup> week of 2023, date code is 317

## ■ Outline Dimensions



SOD-323HE		
Dim	Millimeters	
	Min	Max
A	1.20	1.40
B	2.10	2.30
C	2.30	2.70
D	0.90	1.00
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-323HE	
Dim	Millimeters
P1	0.50
Q1	0.80
Q2	0.80
Q3	2.00
Q4	1.10



## FM115EQ

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### Disclaimer

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