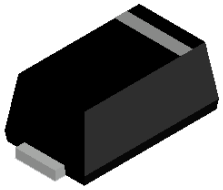
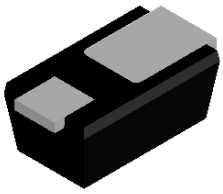
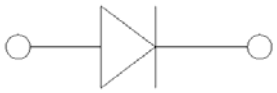
Surface Mount Schottky Rectifier







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 Unless otherwise specified

PARAMETER	SYMBOL	UNIT	FM110EQ
Device marking code			110
Repetitive peak reverse voltage	V_{RRM}	V	100
Maximum RMS voltage	V_{RMS}	V	70
Maximum DC blocking voltage	V_{DC}	V	100
Maximum average forward rectified current at T_L (Fig.1)	IF $_{AV}$	A	1.0
Surge(non-repetitive)forward current @60Hz half-sine wave,1 cycle, T_J=25	I_{FSM}	A	30
Voltage rate of change (rated V_R)	dV/dt	V/μs	10000
Storage temperature	T_{stg}		-55 ~+175
Junction temperature	T_J		-55 ~+175

■Electrical Characteristics (T_a=25 Unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS		TYP	MAX	UNIT
Instantaneous forward voltage	V_F	I_F=1A	T_J=25	0.78	0.83	V
			T_J=125	-	0.68	
Reverse current	I_R	Rated V_R	T_J=25	-	1	uA
			T_J=125	-	50	uA
Typical junction capacitance	C_J	V_R=4V,f=1MHz		30	-	pF

■Thermal Characteristics (T_a=25 Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	FM110EQ
Thermal resistance	$R_{\theta J-A}$	/W	260 [1]
	$R_{\theta J-L}$		70 [1]
	$R_{\theta J-SP}$		10 [2]

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

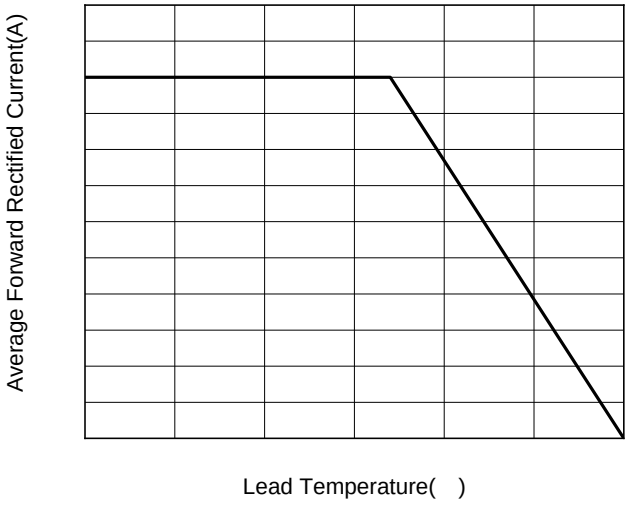


Fig.2:Maximum Non-Repetitive Peak Forward Surge Current

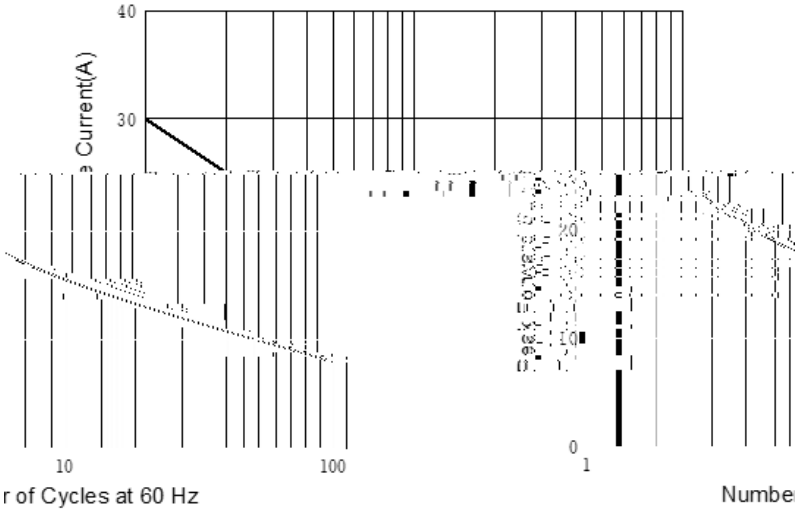


Fig.3:Typical Instantaneous Forward Characteristics

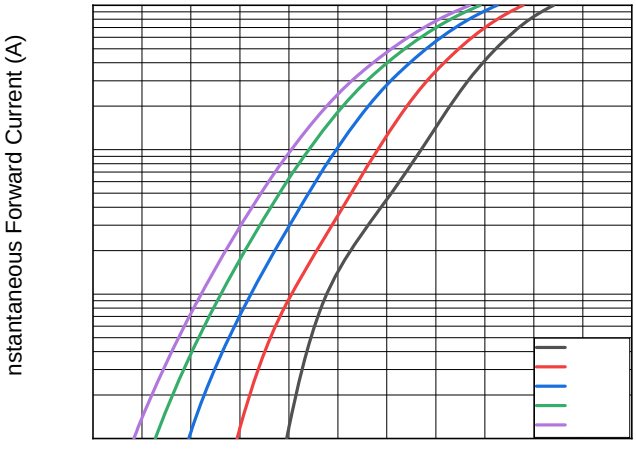
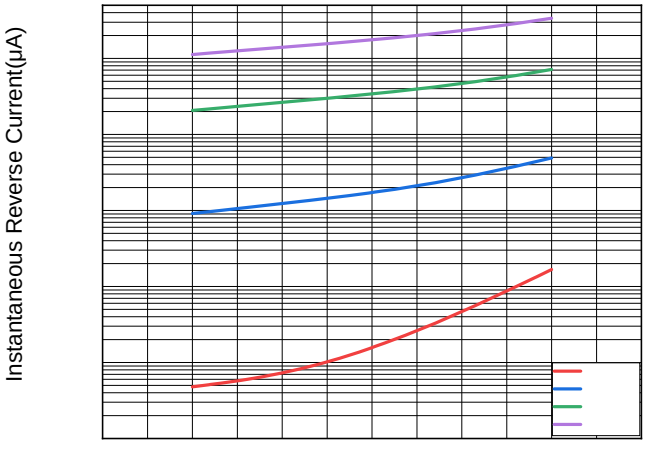


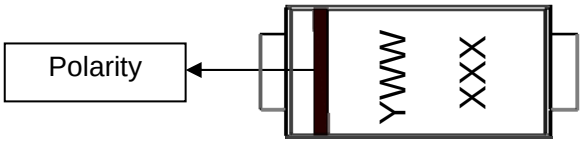
Fig.4:Typical Reverse Leakage Characteristics



■Ordering Information (Example)

PREFERED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
FM110EQ	F1	Approximate 0.008	3000	120000	7” reel

■ Marking Information

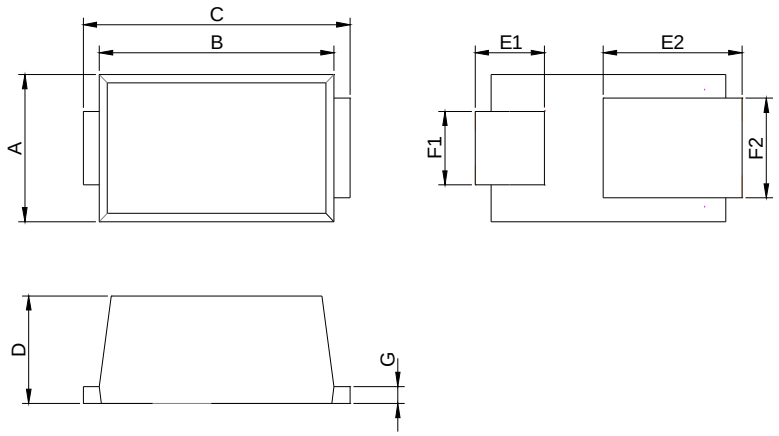


Note:
1. All marking is at middle of the product body
2. All marking is in laser printing
3. XXX is marking code, like FM110EQ marking code is 110
4. Body color: Black
5. YWW is date code, “Y” is year. “WW” is week.

For instance:

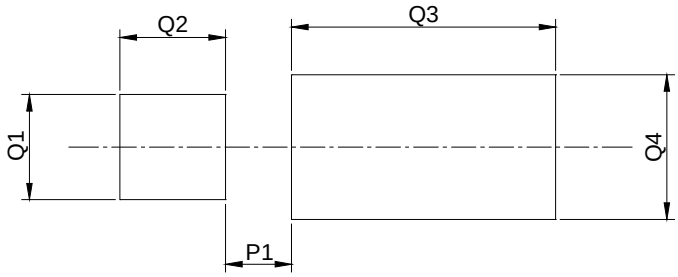
The 17th week of 2022, date code is 217
The 17th week of 2023, date code is 317

■ Outline Dimensions



SOD-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

Disclaimer