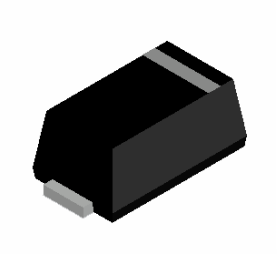
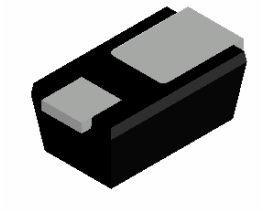
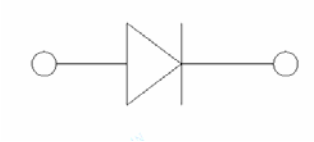
Surface Mount Schottky Rectifier







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	FM12EQ
Device marking code			12
Repetitive peak reverse voltage	V_{RRM}	V	20
Maximum RMS voltage	V_{RMS}	V	14
Maximum DC blocking voltage	V_{DC}	V	20
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 $V_{Surge(o}$ ᴰ p ס " r γ ha] w p ∂ ² ϒ M

			-55 ~+150
Junction temperature	T_J		-55 ~+150

■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	0.42	0.47	V
			T_J=125	-	0.36	
Reverse current	I_R	Rated V_R	T_J=25	-	50	uA
			T_J=125	-	20	mA
Typical junction capacitance	C_J	V_R=4V,f=1MHz		75	-	pF

■Thermal Characteristics (T_a=25 Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	FM12EQ
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

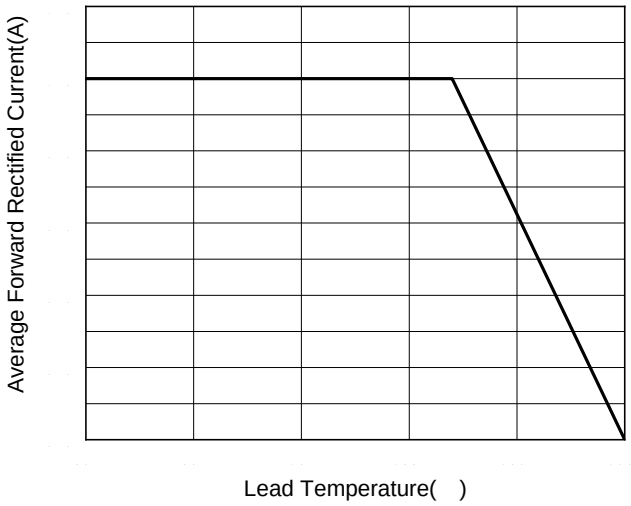


Fig.2:Maximum Non-Repetitive Peak Forward Surge Current

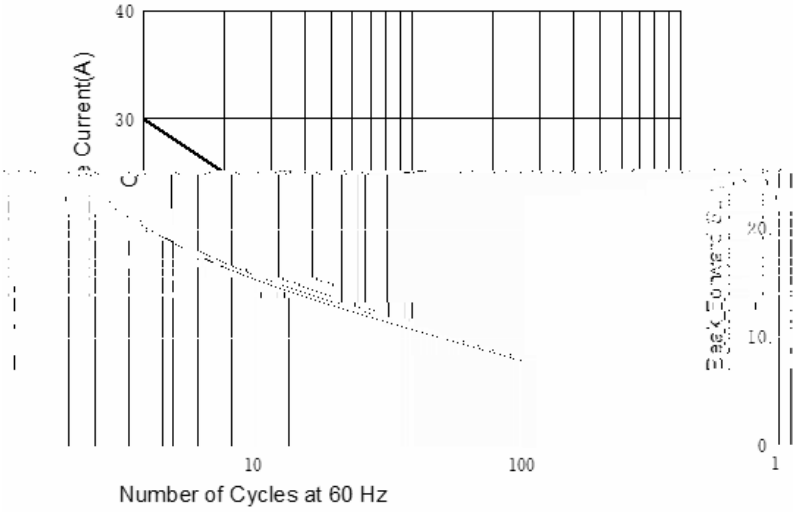


Fig.3:Typical Instantaneous Forward Characteristics

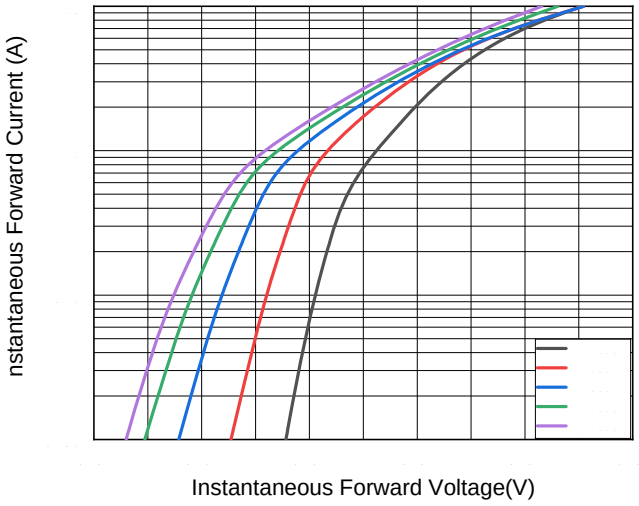
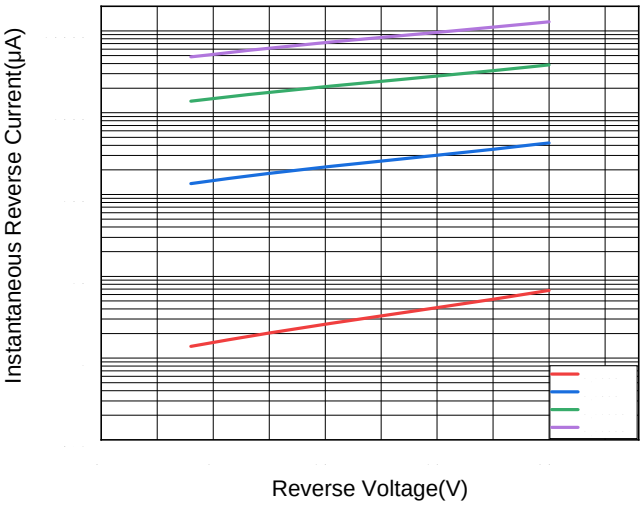


Fig.4:Typical Reverse Leakage Characteristics

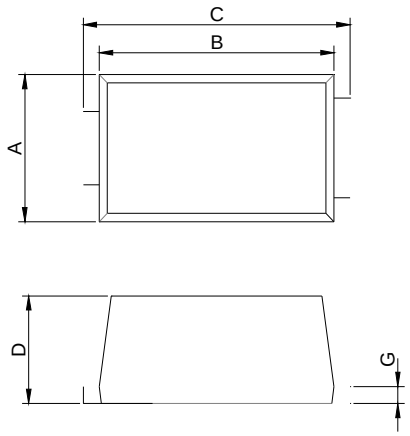


■Ordering Information (Example)

PREFERED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
FM12EQ	F1	Approximate 0.008	3000	120000	7” reel

■ Marking Information

■ 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

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