



INTERNATIONAL
SEMICONDUCTOR, INC.

F-101
thru
F-822

SURFACE MOUNT CURRENT REGULATOR DIODES

MAXIMUM RATINGS

Power Dissipation	400 mW
Thermal Resistance	150 °C/W
Max Rated Voltage	100 Volts
Reverse Current	50 mA
Operating Temperature Range	-30°C to +150°C

DESIGN DATA

CASE: Hermetically sealed glass with solder contact tabs at each end.

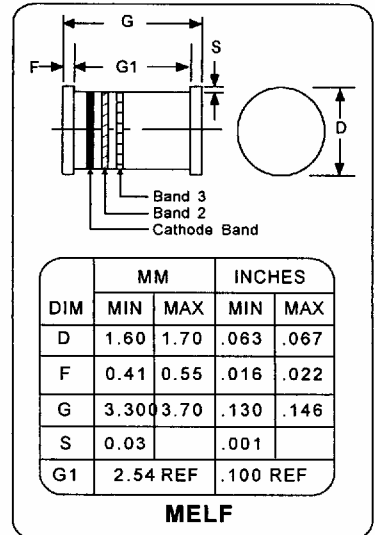
FINISH: All external surfaces are corrosion resistant and readily solderable.

POLARITY: Banded end is cathode.

THERMAL RESISTANCE:
75 °C/Watt typical junction to contact (case) tabs.

MOUNTING POSITION: Any

WEIGHT: 0.04 Grams (Typ.)



SPECIFICATIONS

ISI Part Number	Test Voltage	Pinch Off Current			Limiting Current		Dynamic Impedance Z_T (Mohm)	Limiting Current Ratio I_{100V}/I_P	Temperature Coefficient (%/°C)	Maximum Applied Voltage (V)
		Min	Nom	Max	V_K (V)	I_K (mA)				
F-101L	10V	0.01	0.035	0.06	0.4	$0.8I_P$ min	8.00	1.1 max	+2.10 ~ +0.10	100
F-101	10V	0.05	0.130	0.21	0.5	$0.8I_P$ min	6.00	1.1 max	+2.10 ~ +0.10	100
F-301	10V	0.20	0.310	0.42	0.8	$0.8I_P$ min	4.00	1.1 max	+0.40 ~ -0.20	100
F-501	10V	0.40	0.515	0.63	1.1	$0.8I_P$ min	2.00	1.1 max	+0.15 ~ -0.25	100
F-701	10V	0.60	0.760	0.92	1.4	$0.8I_P$ min	1.00	1.1 max	0.00 ~ -0.32	100
F-102	10V	0.88	1.10	1.32	1.7	$0.8I_P$ min	0.65	1.1 max	-0.10 ~ -0.37	100
F-152	10V	1.28	1.50	1.72	2.0	$0.8I_P$ min	0.40	1.1 max	-0.13 ~ -0.40	100
F-202	10V	1.68	2.00	2.32	2.3	$0.8I_P$ min	0.25	1.1 max	-0.15 ~ -0.42	100
F-272	10V	2.28	2.69	3.10	2.7	$0.8I_P$ min	0.15	1.1 max	-0.18 ~ -0.45	100
F-352	10V	3.00	3.55	4.10	3.2	$0.8I_P$ min	0.10	1.1 max	-0.20 ~ -0.47	100
F-452	10V	3.90	4.50	5.10	3.7	$0.8I_P$ min	0.07	1.1 max	-0.22 ~ -0.50	100
F-562	10V	5.00	5.75	6.50	4.5	$0.8I_P$ min	0.04	1.1 max	-0.25 ~ -0.53	100
F-822	10V	6.56	8.20	9.84	3.1	$0.8I_P$ min	0.32	1.0 max	-0.25 ~ -0.45	50
F-103	10V	8.00	10	12.0	3.5	$0.8I_P$ min	0.17	1.0 max	-0.25 ~ -0.45	42
F-123	10V	9.60	12	14.4	3.8	$0.8I_P$ min	0.08	1.0 max	-0.25 ~ -0.45	34
F-153	10V	12.0	15	18.0	4.3	$0.8I_P$ min	0.03	1.0 max	-0.25 ~ -0.45	28

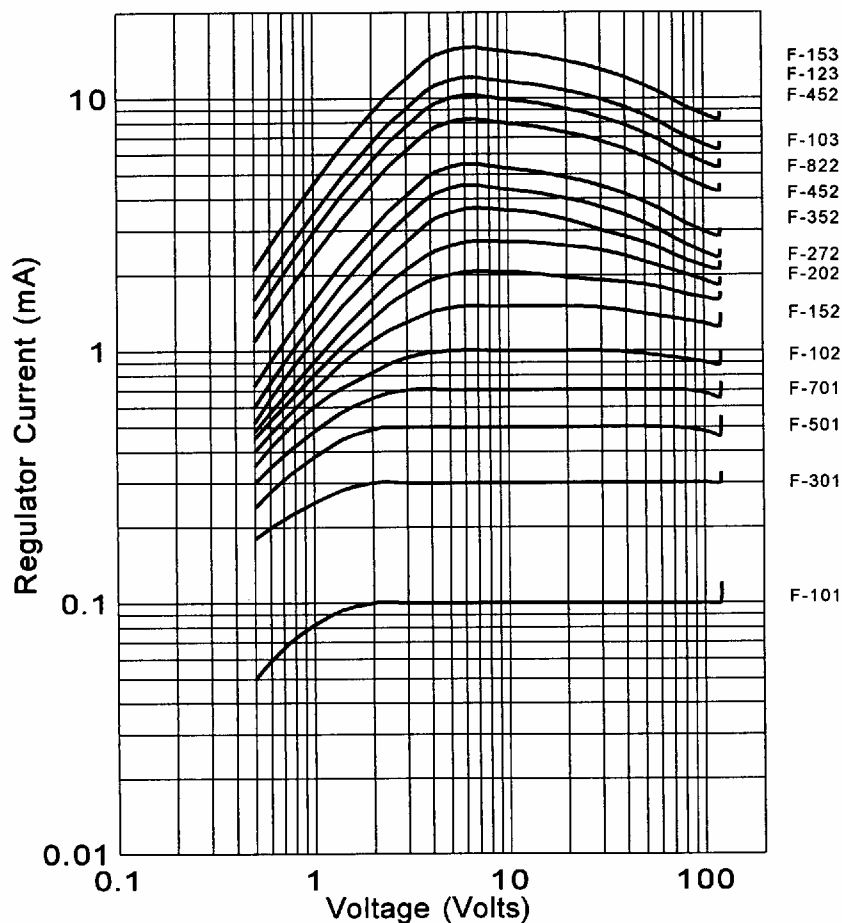
252 Cox Street, Roselle, NJ, USA, 07203-1704 ■ 908 245-2233

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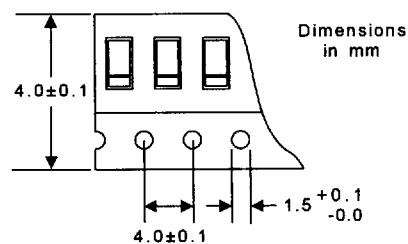
F-101 thru F-822 SURFACE MOUNT CURRENT REGULATOR DIODES CHARACTERISTIC CURVES

Current Regulator Dynamic Characteristics

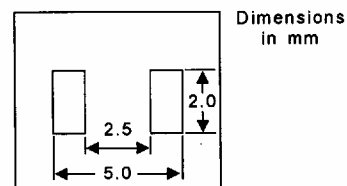


Type	Cathode Band	Second Band	Third Band
F-101L	Black	Light Blue	White
F-101	Black	Light Blue	Pink
F-301	Black	Light Blue	Red
F-501	Black	Light Blue	Yellow Green
F-701	Black	Light Blue	Blue
F-102	Black	Yellow	Pink
F-152	Black	Yellow	Red
F-202	Black	Yellow	Yellow Green
F-272	Black	Yellow	Light Blue
F-352	Black	Yellow	Blue
F-452	Black	Yellow	Purple
F-562	Black	Yellow	White
F-822	Black	Yellow	Yellow
F-103	Black	Orange	Pink
F-123	Black	Orange	White
F-153	Black	Orange	Light Blue

SOD-80

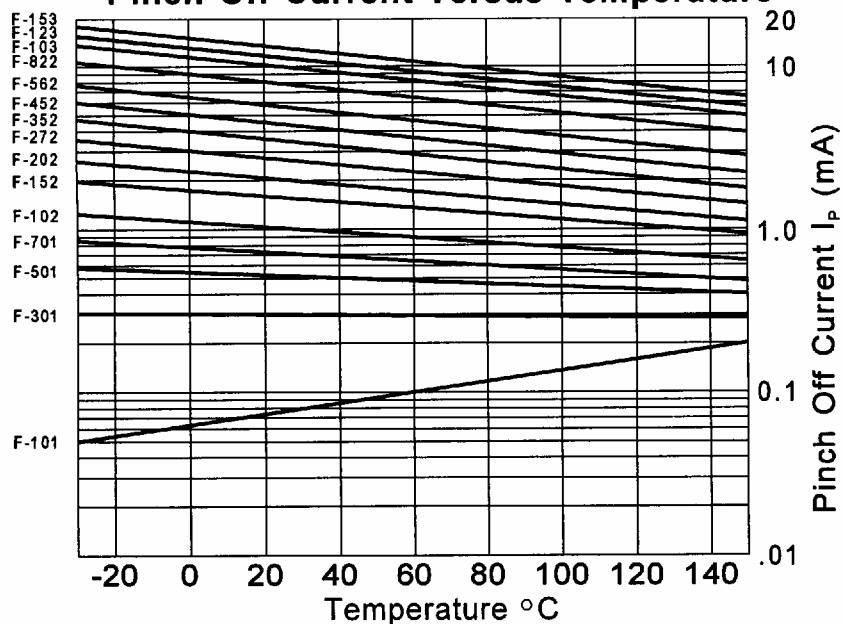


Tape Dimensions and Orientation For Surface Mount MELF Package



Mounting Pad Geometry For Surface Mount MELF Package

Pinch Off Current Versus Temperature



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