II. Schottky Rectifier

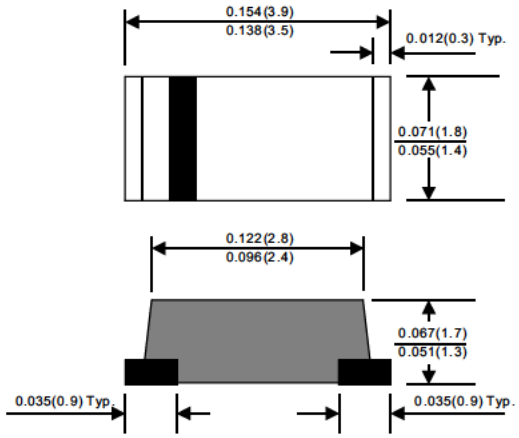
1.0A Surface Mount Schottky Rectifier
FM102~FM110 (Package: SOD-123)

FEATURES

- Silicon epitaxial planar chip, metal-silicon junction
- Batch process design, excellent power dissipation offers better reverse leakage current and thermal resistance
- Ultra high speed switching
- Low power loss, high efficiency
- Low forward voltage drop, high current capability
- Guardring for overvoltage protection
- The plastic material carries UL recognition 94V-0

MECHANICAL DATA

- Case : Molded plastic, SOD-123 / Mini SMA
- Terminals : Plated terminals, solderable per MIL-STD-750, Method 2026
- Mounting position : Any
- Polarity : Color band denotes cathode
- Weight : approx. 0.027 grams



Case: SOD-123
Dimensions in inches and (millimeters)

Ratings & Electrical Characteristics

Ratings at 25℃ ambient temperature unless otherwise specified.
Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20%.

Characteristics	Symbol	FM102	FM103	FM104	FM105	FM106	FM108	FM110	Units
Component Marking		12	13	14	15	16	18	110	
Maximum recurrent peak reverse voltage	V_{RRM}	20	30	40	50	60	80	100	Volts
Maximum RMS voltage	V_{RMS}	14	21	28	35	42	56	70	Volts
Maximum DC blocking voltage	V_{DC}	20	30	40	50	60	80	100	Volts
Maximum average forward rectified current See Fig.1	Io	1.0							Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load. (JEDEC Method)	I_{FSM}	30							Amps
Maximum forward voltage at 1.0 A DC	V_F	0.50			0.70		0.85		Volts
Maximum DC reverse current @Ta = 25℃ at rated DC blocking voltage @Ta = 125℃	I_R	0.5 10							mA
Typical junction capacitance (Note 1)	Cj	120							PF
Typical thermal resistance (Note 2)	Rth-JA	98							℃/W
Operating temperature range	Tj	-55 to +125			-55 to +150				℃
Storage temperature range	Tstg	-65 to +175							℃

Notes:
1. Measured at 1.0 MHz and applied reverse voltage of 4.0V DC.
2. Thermal resistance junction to ambient.

Ratings and Characteristic Curves of FM102~FM110

FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE

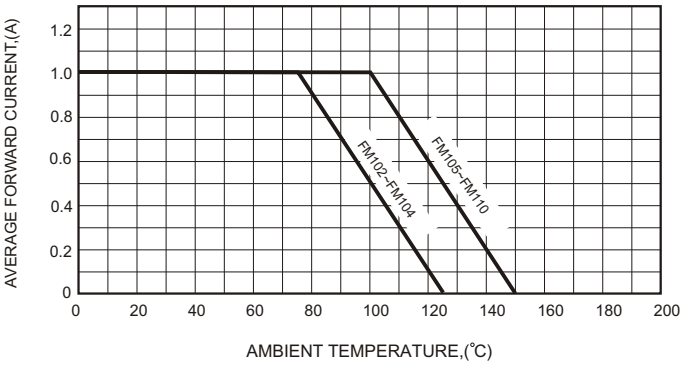


FIG.2 TYPICAL FORWARD CHARACTERISTICS

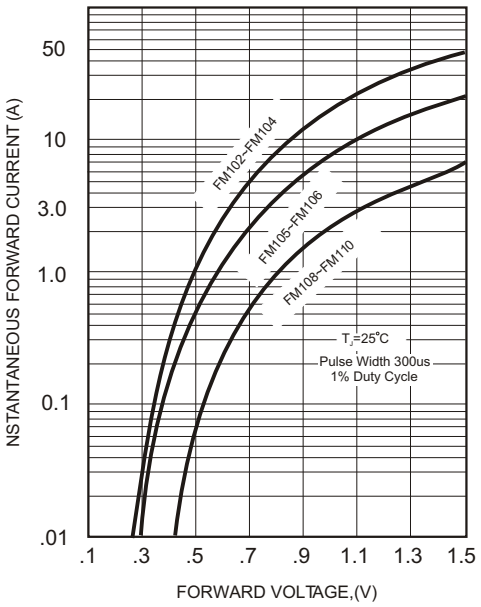


FIG.3 MAXIMUM NON REPETITIVE FORWARD SURGE CURRENT

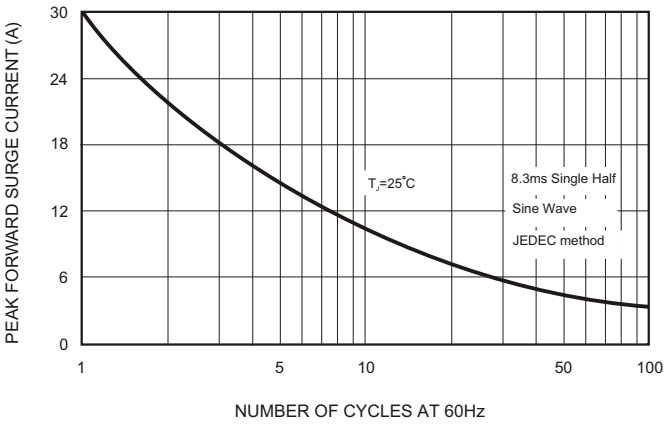


FIG.4 TYPICAL JUNCTION CAPACITANCE

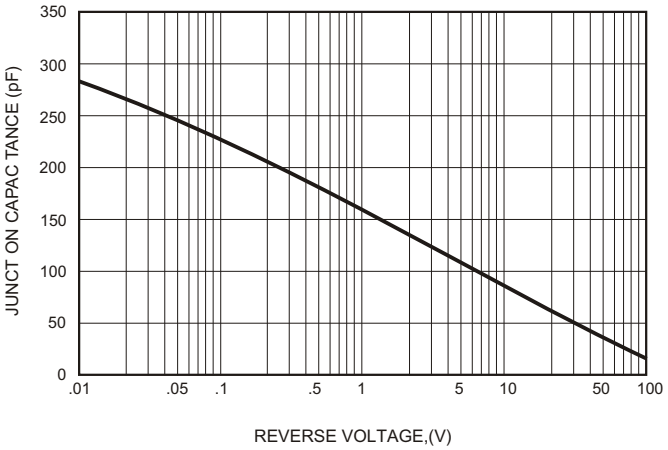


FIG.5 TYPICAL REVERSE CHARACTERISTICS