FM1H01-RM Thru FM1H07-RM

List

FM1H01-RM Thru FM1H07-RM

1.0A General Purpose
Rectifiers : 50V ~ 1000V

Features

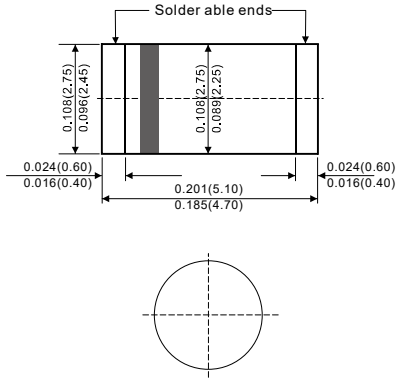
- Idea for surface mounted applications.
- Glass passivated device.
- Low leakage current.
- Metallurgically bonded constructionbonded construction.
- Lead-free parts meet RoHS requirements.
- Suffix "-H" indicates Halogen free parts, ex. FM1H01-RM-H.

Mechanical data

- Epoxy:UL94-V0 rated flame retardant.
- Case : Molded plastic over passivated chip, Round-MELF (DO-213AB).
- Terminals : Solder plated, solderable per MIL-STD-750,Method 2026.
- Polarity : Color band denotes cathode end.
- Mounting Position : Any.

Package outline

Round-MELF
(DO-213AB)



Dimensions in inches and (millimeters)

Maximum ratings and electrical characteristics (At T_A=25°C unless otherwise noted)

Parameter	Symbol	FM1H01 -RM	FM1H02 -RM	FM1H03 -RM	FM1H04 -RM	FM1H05 -RM	FM1H06 -RM	FM1H07 -RM	Unit
Repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	V
RMS voltage	V_{RMS}	35	70	140	280	420	560	700	V
DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	V
Average forward rectified current at T_A=75°C	I_O	1.0							A
Peak forward surge current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	30							A
Instantaneous forward voltage at 1.0A	V_F	1.1							V
DC reverse current T_A=25°C	I_R	5							μA
at rated DC blocking voltage T_A=125°C		50							
Typical junction capacitance (Note1)	C_J	15							pF
Thermal resistance, junction Lead (Note2)	$R_{\theta JL}$	20							°C/W
Thermal resistance, junction to ambient (Note3)	$R_{\theta JA}$	50							°C/W
Operating junction temperature	T_J	+175							°C
Storage temperature range	T_{STG}	-55 to +175							°C

Note : 1.Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2.Thermal resistance junction to lead, 6.0mm^2 copper pads to each terminal.
3.Thermal resistance junction to ambient, 6.0mm^2 copper pads to each terminal.
4.Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

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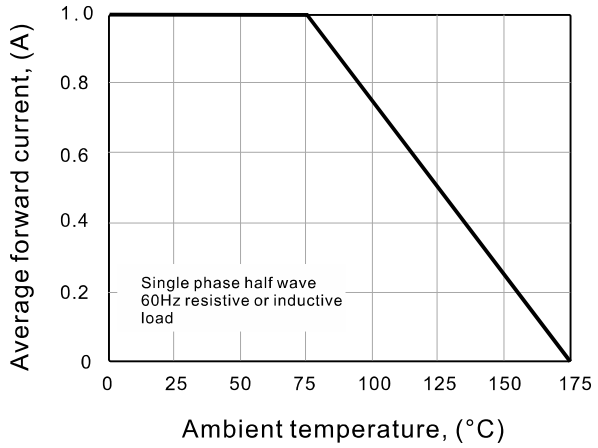
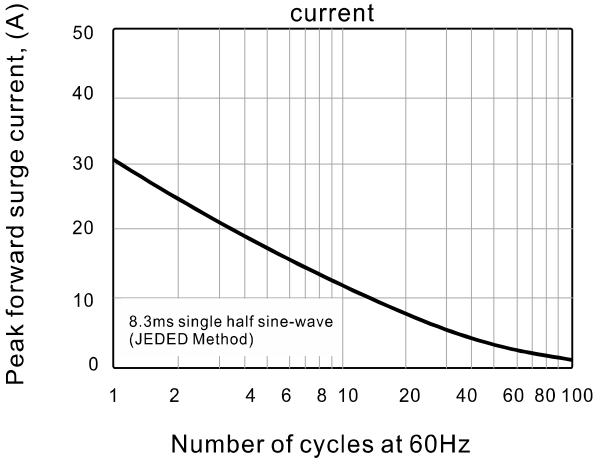
Rating and characteristic curves

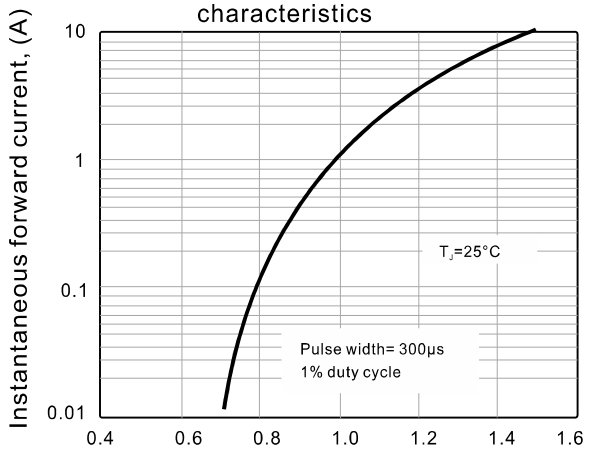
Typical forward current derating curve



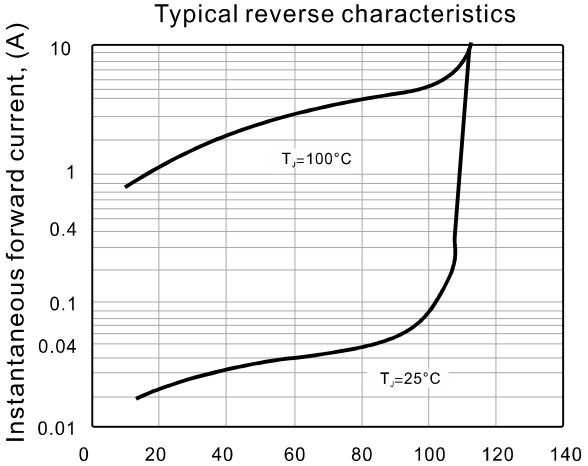
Maximum non-repetitive forward surge current



Typical instantaneous forward characteristics



Typical reverse characteristics



Typical junction capacitance