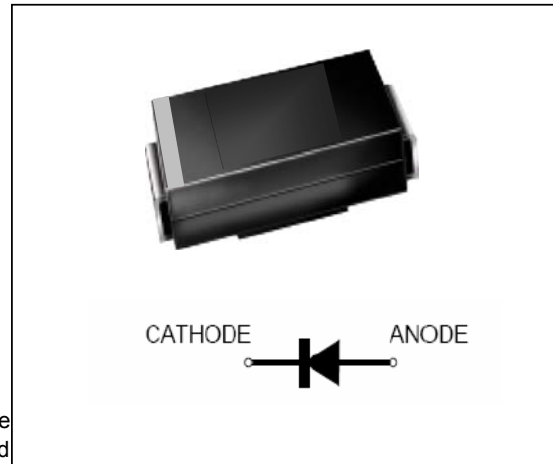


S-FM401 thru S-FM407

Surface Mount Glass Passivated Junction Rectifiers Reverse Voltage 50 to 1000V Forward Current 1.0A

FEATURES

- * Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- * High temperature metallurgically bonded construction
- * Cavity-free glass passivated junction
- * Capable of meeting environmental standards of MIL-S-19500
- * 1.0 A operation at TL=100°C with no thermal runaway
- * Typical IR less than 1.0 μ A
- * High temperature soldering guaranteed: 260°C/10 seconds
- * S- Prefix for Automotive and Other Applications Requiring Unique Site and Control Change Requirements; AEC-Q101 Qualified and PPAP Capable.



Mechanical Data

Case: JEDEC DO-214AC, molded plastic over glass body

Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026

Polarity: Color band denotes cathode end

Mounting Position: Any

Weight: 0.0023 oz., 0.065 g

Handling precaution: None

Electrical Characteristic

1. Maximum & Thermal Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Parameter Symbol	symbol	S-FM 401	S-FM 402	S-FM 403	S-FM 404	S-FM 405	S-FM 406	S-FM 407	Unit
Device marking code		M01	M02	M03	M04	M05	M06	M07	
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RSM voltage	V_{RSM}	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum average forward rectified current 0.375" (9.5mm) lead length at TL = 75°C(See fig. 1)	$I_{F(AV)}$	1.0							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30							A
Typical thermal resistance (Note 1)	$R_{\theta JA}$	150							°C/W
	$R_{\theta JL}$	35							°C/W
Operating junction and storage temperature range	T_J, T_{STG}	-50 to +150							°C

Electrical Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Parameter Symbol	symbol	S-FM 401	S-FM 402	S-FM 403	S-FM 404	S-FM 405	S-FM 406	S-FM 407	Unit
Maximum instantaneous forward voltage at 1.0A	V_F	1.1							V
Maximum DC reverse current $T_A = 25^\circ\text{C}$ at rated DC blocking voltage $T_A = 125^\circ\text{C}$	I_R	5.0 50							μA
Typical junction capacitance at 4.0V, 1MHz	C_J	8.0							PF

NOTES:

1. $I_F = 0.5\text{A}$, $I_R = 1.0\text{A}$, $I_{RR} = 0.25\text{A}$
2. 8.0mm² (.013mm thick) land areas

We declare that the material of product compliance with ROHS requirements

S-FM401 thru S-FM407

2. Ratings and Characteristic Curves (TA = 25°C unless otherwise noted)

Fig. 1 - Forward Current Derating Curve

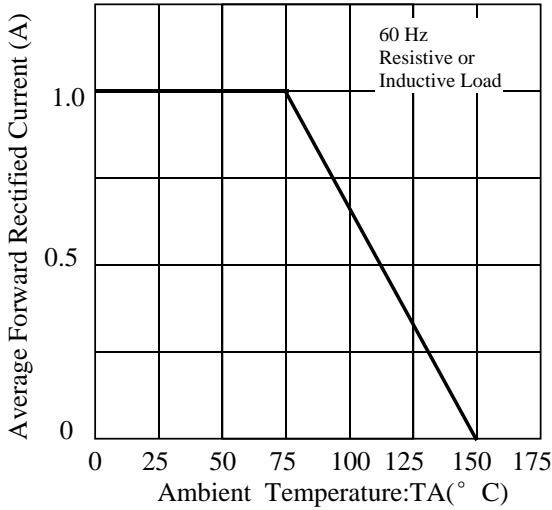


Fig. 2 - Maximum Non-repetitive Peak Forward Surge Current

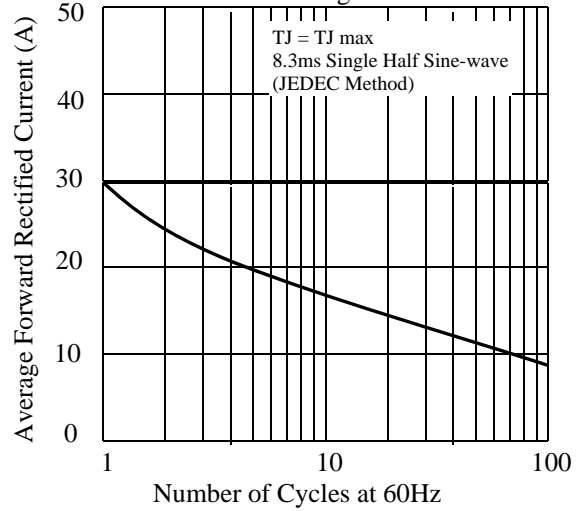


Fig 3. - Typical Instantaneous Forward Characteristics

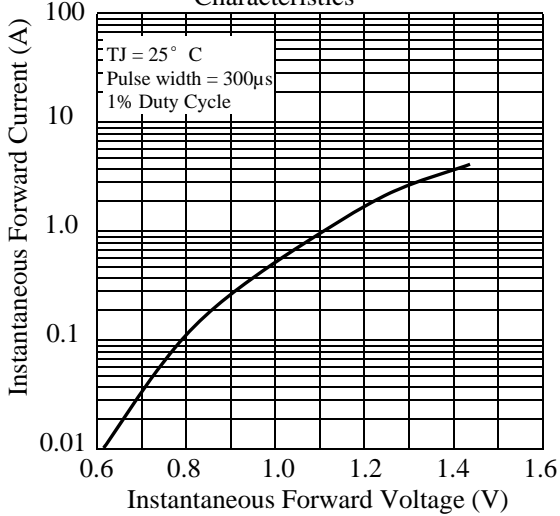


Fig 4. - Typical Reverse Characteristics

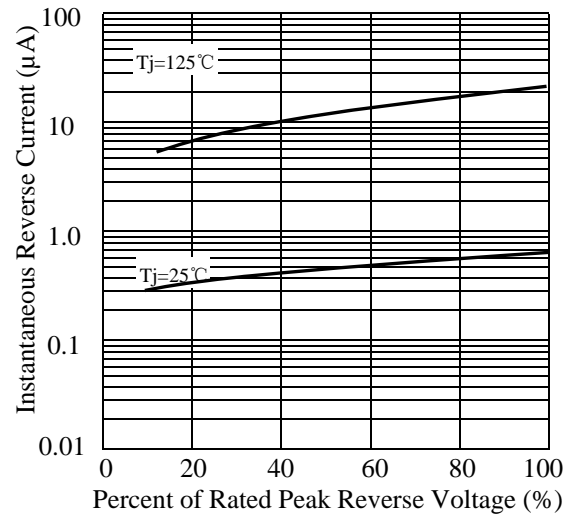


Fig 5. - typical transient thermal impedance

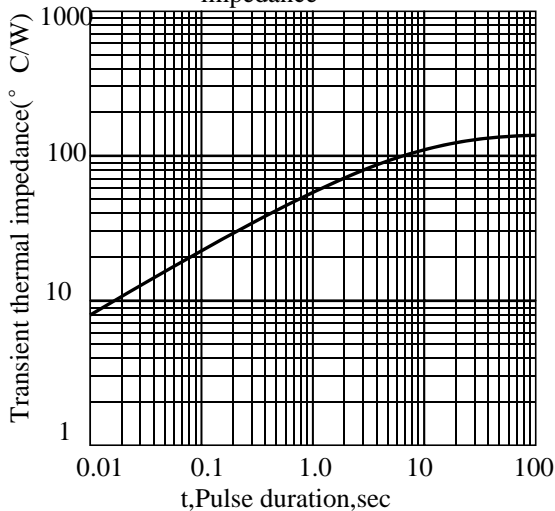
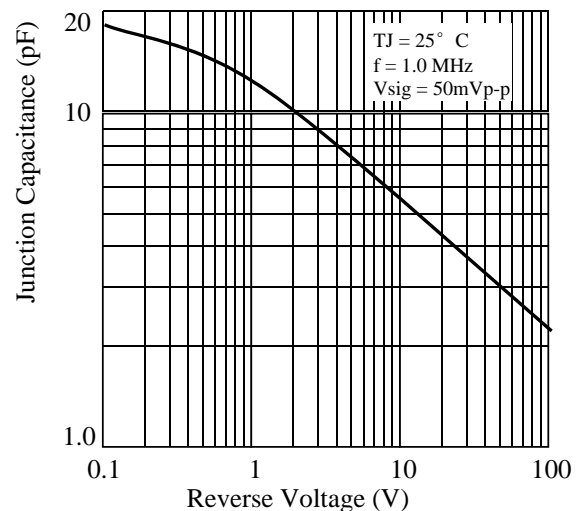


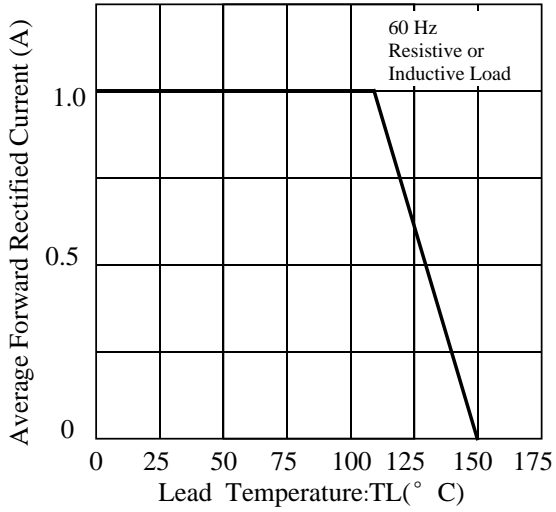
Fig 6. - Typical Junction Capacitance



S-FM401 thru S-FM407

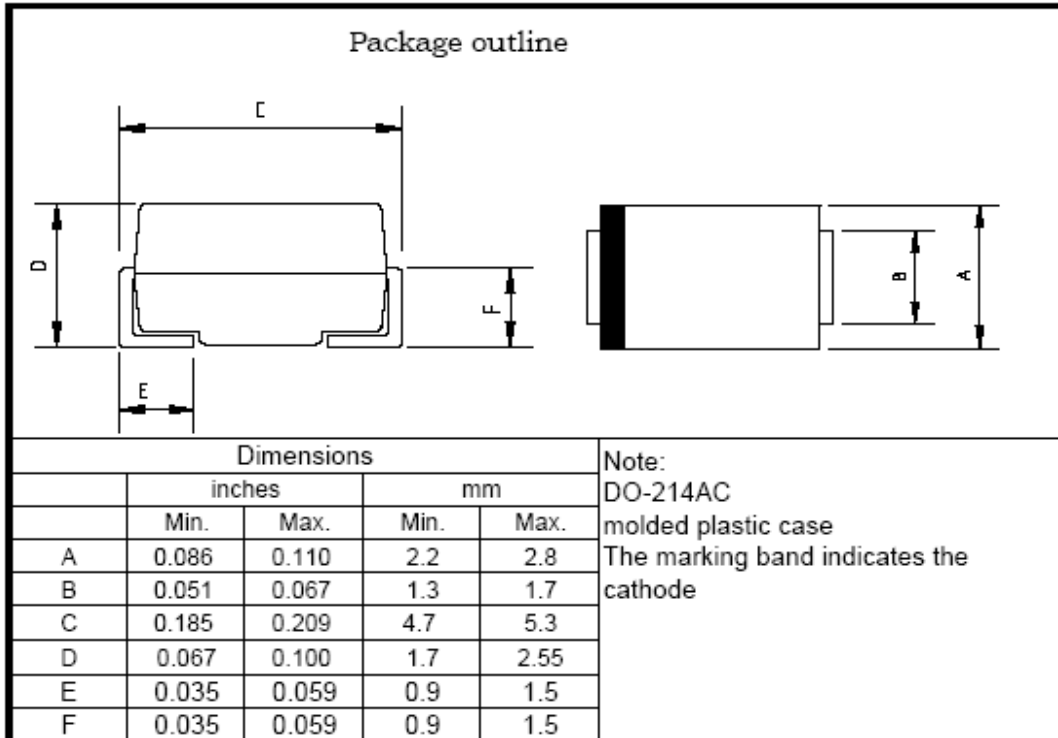
2. Ratings and Characteristic Curves (TA = 25°C unless otherwise noted)

Fig. 7 - Forward Current Derating Curve



S-FM401 thru S-FM407

3. dimension:



S-FM401 thru S-FM407

4. Update Record

版次	更新记录	更新作者	更新日期
1	第一版	周杰	2013.11.01
2	增加TL热阻及电流降额曲线。	谭志伟	2018.10.24

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