



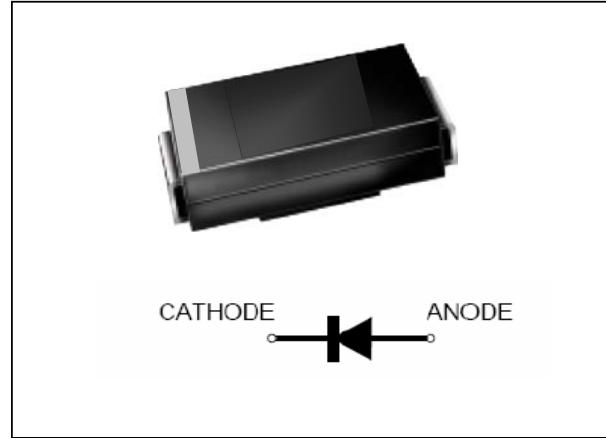
乐山无线电股份有限公司  
Leshan Radio Company, Ltd

## FM401 thru 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
- \* Typical IR less than 1.0 $\mu$ A
- \* High temperature soldering guaranteed: 260°C/10 seconds



### 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 precautin:**None

### Electrical Characteristic

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

Parameter Symbol	symbol	FM 401	FM 402	FM 403	FM 404	FM 405	FM 406	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 land areas at $T_c = 75^\circ\text{C}$ (Note 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)	$R_{\theta JA}$ $R_{\theta JC}$				150 45				°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	FM 401	FM 402	FM 403	FM 404	FM 405	FM 406	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 $T_A = 125^\circ\text{C}$	$IR$			5.0 50					$\mu\text{A}$
Typical junction capacitance at 4.0V, 1MHz	$C_J$			15.0					PF

#### NOTES:

1. 8.0mm<sup>2</sup> (.013mm thick) land areas

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### 2. Ratings and Characteristic Curves ( $T_A = 25^\circ C$ unless otherwise noted )

Fig. 1 - Forward Current Derating Curve

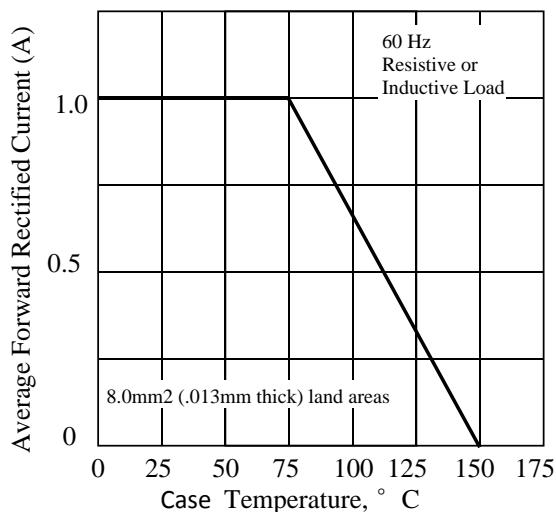


Fig. 2 - Maximum Non-repetitive Peak Forward Surge Current

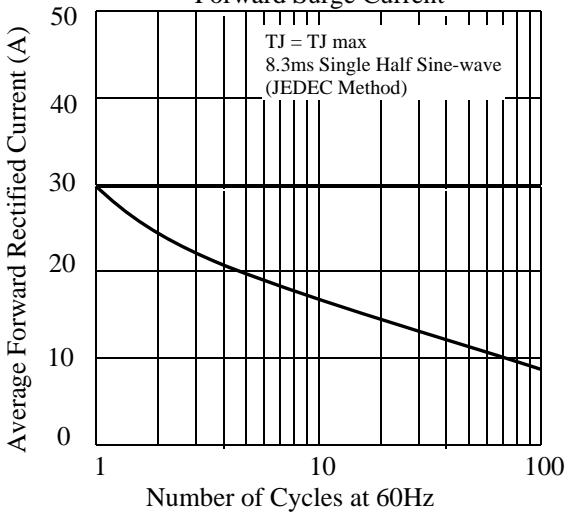


Fig. 3. - Typical Instantaneous Forward Characteristics

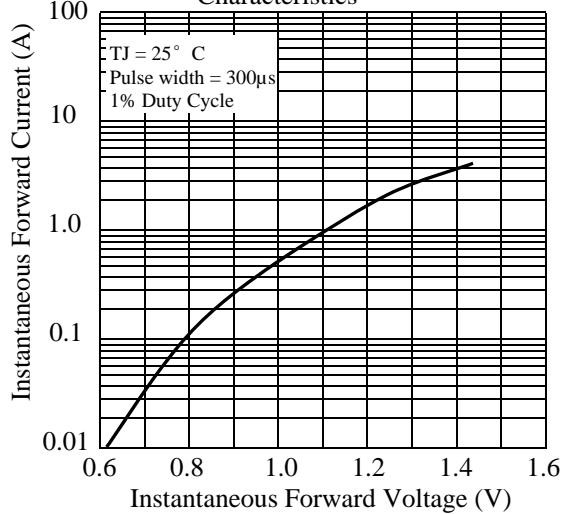


Fig. 4. - Typical Reverse Characteristics

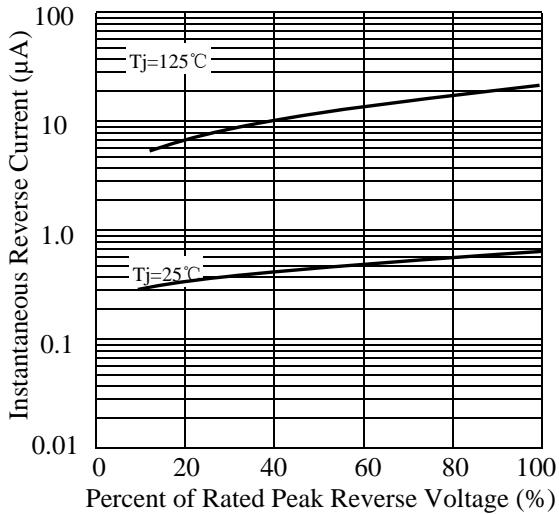


Fig. 5. - typical transient thermal impedance

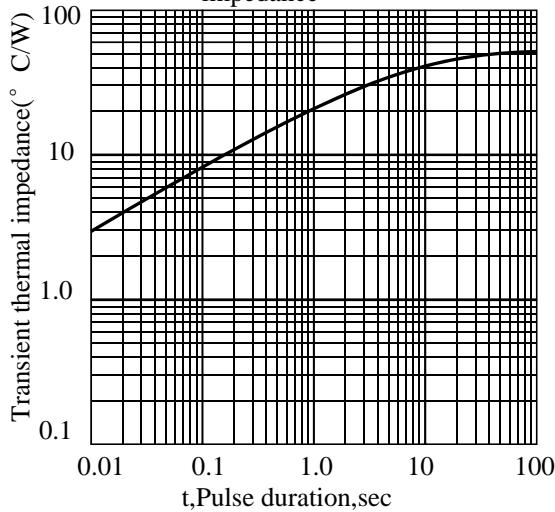
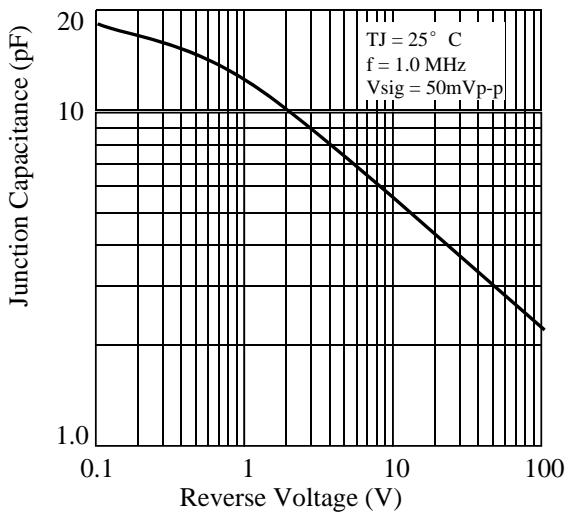


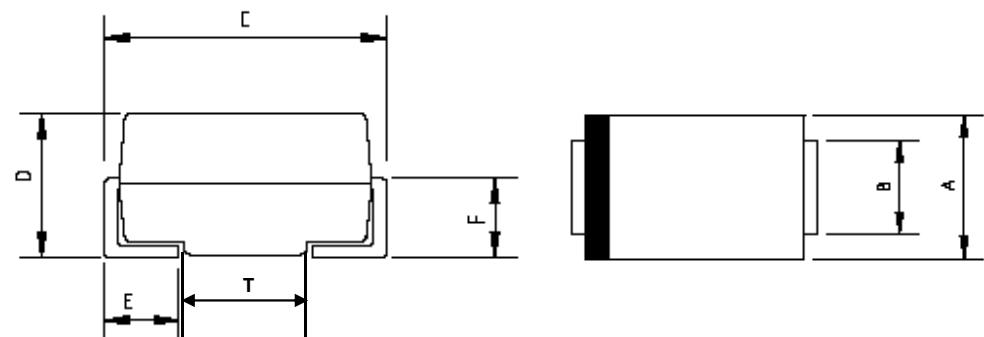
Fig. 6. - Typical Junction Capacitance



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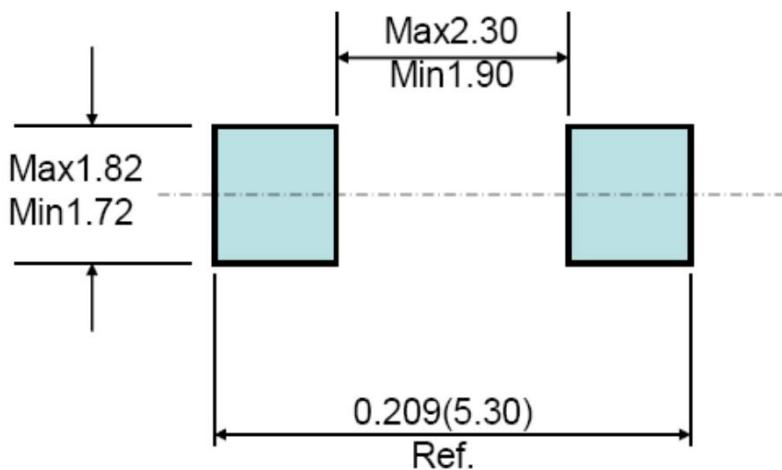
### 3. dimension:

**Package outline**



Dimensions				Note: DO-214AC molded plastic case The marking band indicates the cathode
	inches		mm	
	Min.	Max.	Min.	Max.
A	0.086	0.11	2.2	2.8
B	0.051	0.067	1.3	1.7
C	0.185	0.209	4.7	5.3
D	0.067	0.1	1.7	2.55
E	0.035	0.059	0.9	1.5
F	0.035	0.059	0.9	1.5
T	0.055	0.071	1.4	1.8

**Mounting Pad Layout**  
 ---SMA





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### 4. Update Record

版次	更新记录	更新作者	更新日期
1	第一版	周杰	2010-4-13
2	增加包装规范	周杰	2011-9-13
3	修改热阻和降额温度	谭志伟	2016-9-1