TRR®

UMB05F Thru UMB10F

Ultra Miniature Glass Passivated Single-Phase Surface Mount Flat Bridge Rectifier

Features

- Low profile space
- Ideal for automated placement
- Glass passivated chip junctions
- Low forward voltage drop
- Low leakage current
- High forward surge capability
- High temperature soldering：
  260℃/10 seconds at terminals
- Component in accordance to
  RoHS 2011/65/EU and WEEE 2002/96/EC

SOF2-4

RoHS COMPLIANT

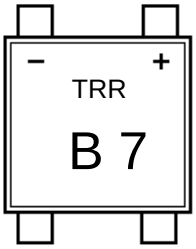
Major Ratings and Characteristics

$I_{F(AV)}$	0.5A,0.8A
V_{RRM}	50V to 1000V
I_{FSM}	20A
I_R	5.0μA
V_F	1.1V
$T_j$max.	150℃

Mechanical Date

- **Case:**SOF2-4
  Molding compound meets
  UL 94 V-0 flammability rating
- **Terminals:** Solder plated, solderable per
  MIL-STD-750， Method 2026
- **Polarity:** Polarity symbols marked on body
- **Marking:** type number

Marking:



Marking meaning

UMB05F= Marking Code

Maximum Ratings & Thermal Characteristics (T_A = 25 °C unless otherwise noted)

Items	Symbol	UMB 05F	UMB 1F	UMB 2F	UMB 4F	UMB 6F	UMB 8F	UMB 10F	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS reverse voltage	V_{RMS}	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 at T_A(see Fig1.) -on glass-epoxy P.C.B[1] -on aluminum substrate[2]	$I_{F(AV)}$	0.5 0.8							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	20							A
Thermal resistance from junction to ambient per leg	$R_{\theta JA}$[1] $R_{\theta JA}$[2]	100 80							°C/W
Thermal resistance from junction to lead per leg	$R_{\theta JL}$[1]	30							
Operating junction and storage temperature range	T_J,T_{STG}	-55 to +150							℃

Note：1.On glass epoxy P.C.B. mounted on 0.06" x 0.04" (1.5mm x 1.1mm) pads

2.On aluminum substrate P.C.B. with an area of 0.8×0.8"(20×20mm) mounted on 0.06×0.04"(1.5×1.1mm) solder pad

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Electrical Characteristics (T_A = 25 °C unless otherwise noted)

Items	Test conditions		Symbol	Min	Type	Max	Unit
Instantaneous forward voltage per leg	I_F=0.4A (3)		V_F	-	0.96	1.1	V
Reverse current per leg	V_R=V_{DC}	T_A=25°C	I_R			5.0	μA
		T_A=125°C				100.0	

Characteristic Curves (T_A=25 ℃ unless otherwise noted)

Fig.1 Output Current Derating Curve

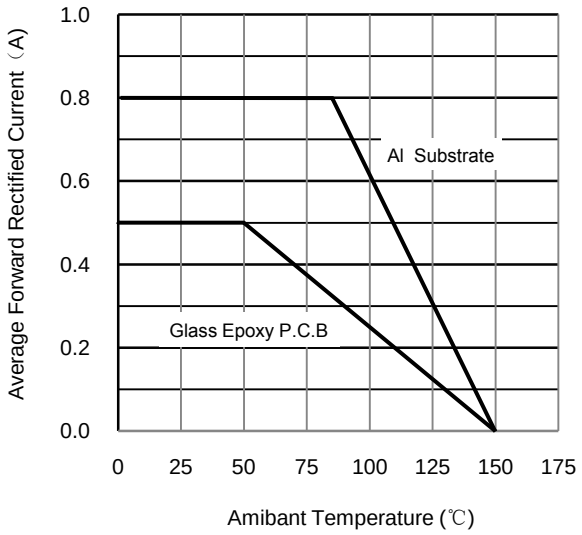


Fig.2 Maximum Peak Forward Surge Current(per leg)

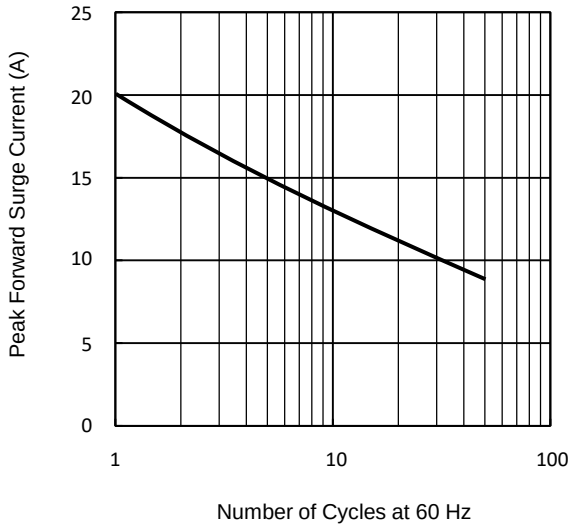


Fig.3 Typical Forward Characteristics（per leg)

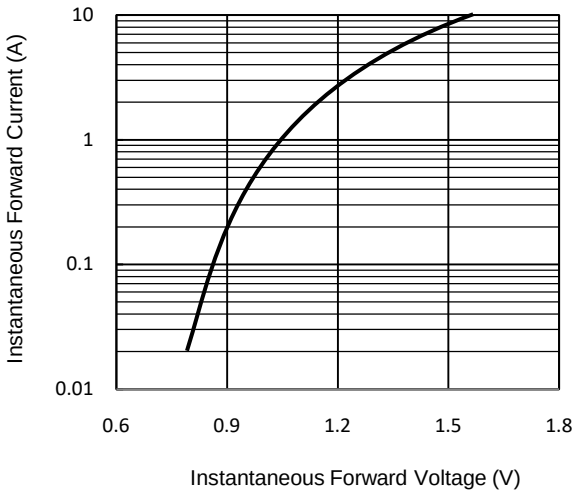
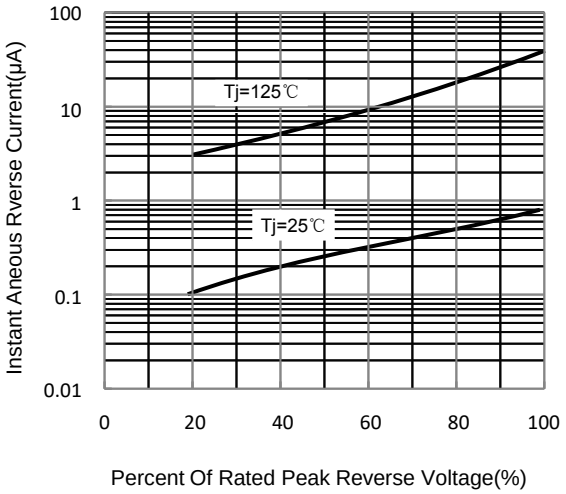


Fig.4 Typical Reverse Characteristics



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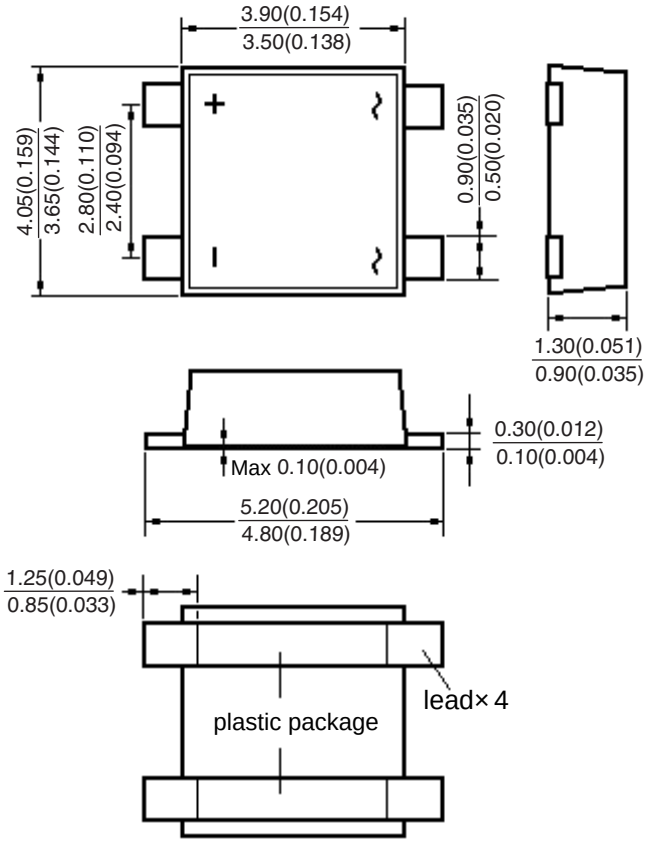
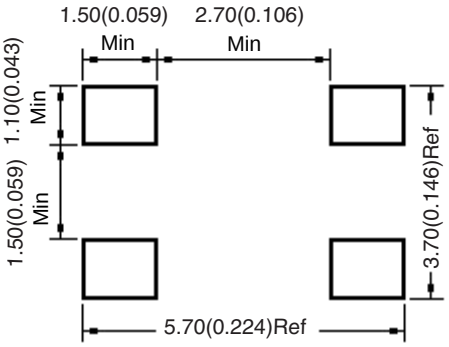
Package Outline

SOF2-4



Dimensions in millimeters and (inches)

Mounting Pad Layout



Dimensions in millimeters and (inches)