

Small Signal Product

**Silicon Bridge Rectifiers**

FEATURES

- Ultra low leakage current  $I_R < 2\mu A$ ,  $T_A = 125^\circ C$
- No solder used, real fully in line with lead free
- Package thickness is 1.2 mm
- High ESD > 12 kV ( HBM model )
- Plastic material has U/L flammability classification 94V-0
- High temperature soldering guaranteed: 260°C/10s ( Reflow )
- High temperature soldering guaranteed:  
350°C/ 3s ( Manual welding )



TMB



MECHANICAL DATA

- Case: TMB
- Marking Code : R6S05
- Weight: 58mg (approximately)



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS ( $T_A = 25^\circ C$ unless otherwise noted)			
PARAMETER	SYMBOL	VALUE	UNIT
Repetitive Peak Reverse Voltage	$V_{RRM}$	600	V
RMS Voltage	$V_{RMS}$	420	V
DC Blocking Voltage	$V_{DC}$	600	V
Average Forward Rectified Current	$I_{F(AV)}$	0.5	A
Maximum Continuous Forward Rectified Current	$I_{max}$	2	A
Peak Forward Surge Current 8.3 ms Single Half Sine-Wave	$I_{FSM}$	12	A
Thermal Resistance	$R_{\theta JA}$	200	$^\circ C/W$
Operating Junction and Storage Temperature Range	$T_J, T_{STG}$	-55 to + 150	$^\circ C$

PARAMETER	TEST CONDITIONS	SYMBOL	VALUE	Units
Reverse Current	$V_{RM} = V_{RRM}, T_A = 25^\circ C$	$I_R$	0.5	$\mu A$
	$V_{RM} = V_{RRM}, T_A = 125^\circ C$		2.0	
Forward Voltage	$I_F = 0.25 A, T_A = 25^\circ C$	$V_F$	1.0	V

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RATINGS AND CHARACTERISTICS CURVES

( $T_A=25^\circ\text{C}$  unless otherwise noted)

Fig. 1 Reverse Voltage Characteristics

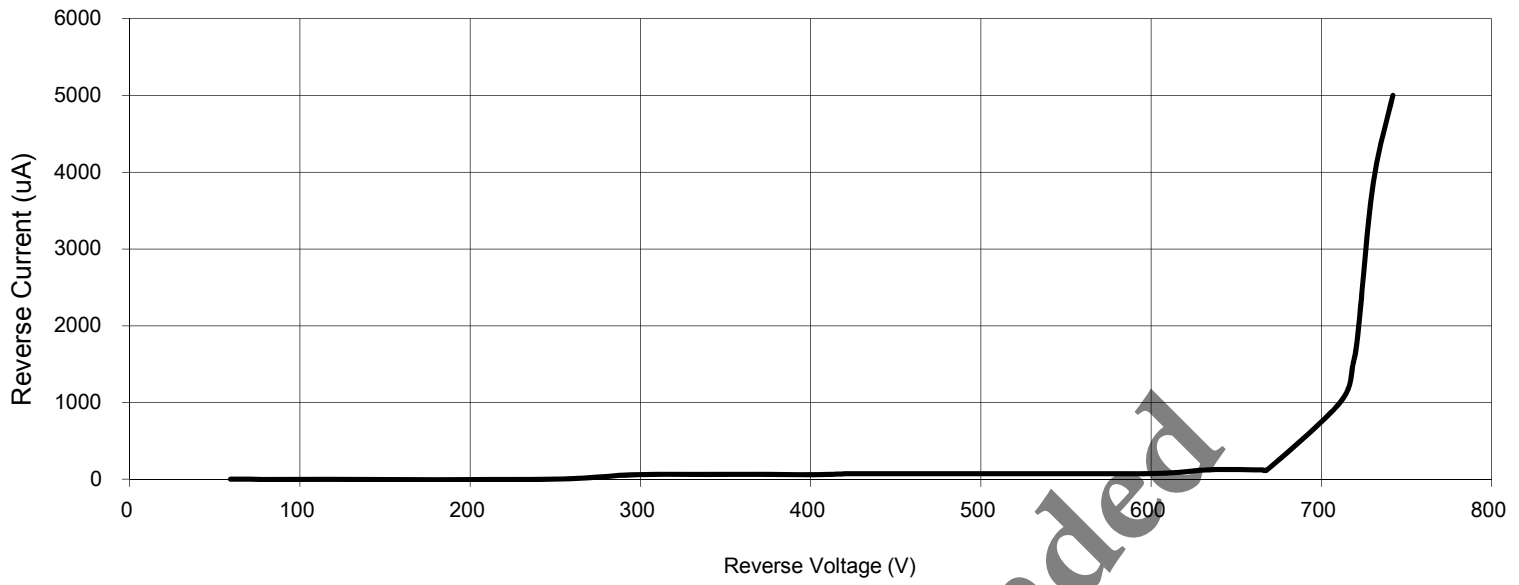


Fig. 2 Forward Derating Curve

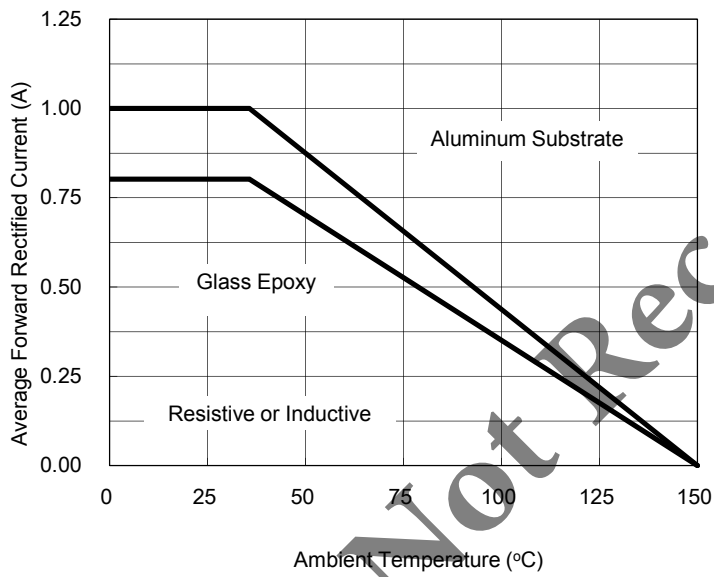
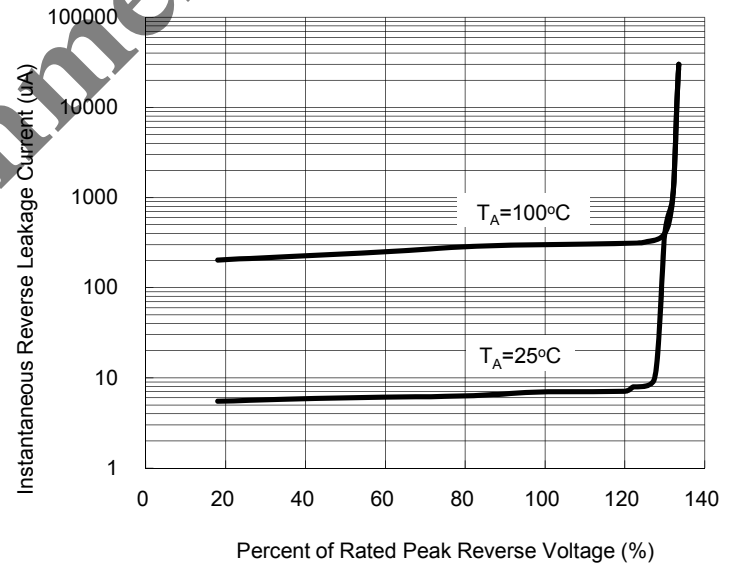


Fig. 3 Typical Reverse Characteristics



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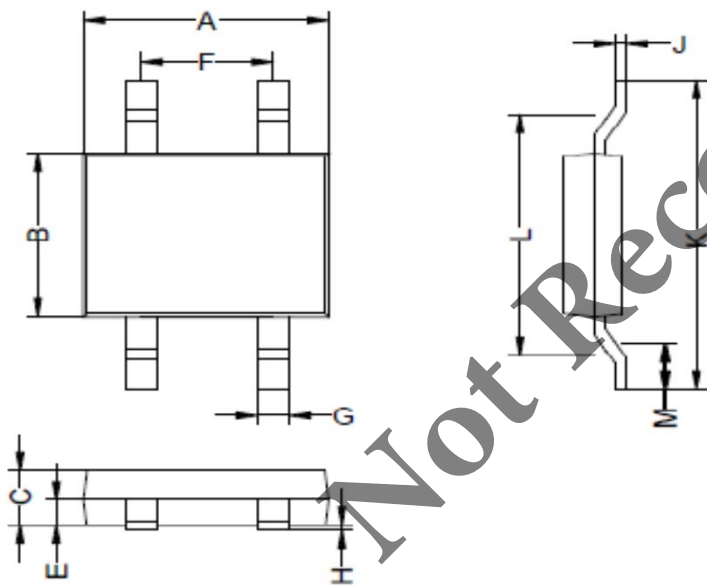
ORDERING INFORMATION					
PART NO.	PART NO. SUFFIX (Note 1)	PACKING CODE	PACKING CODE SUFFIX	PACKAGE	PACKING
TMBR6S05	-xx	R7	G	TMB	5K / 13" Reel

Note 1: Part No. Suffix „-xx “ would be used for special requirement

EXAMPLE					
PREFERRED PART NO.	PART NO.	PART NO. SUFFIX	PACKING CODE	PACKING CODE SUFFIX	DESCRIPTION
TMBR6S05 R7	TMBR6S05		R7		Multiple manufacture source
TMBR6S05 R7G	TMBR6S05		R7	G	Multiple manufacture source Green compound
TMBR6S05-D0 R7G	TMBR6S05	-D0	R7	G	Defined manufacture source Green compound

PACKAGE OUTLINE DIMENSIONS

**TMB**



DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	4.50	4.70	0.177	0.185
B	3.60	3.80	0.142	0.150
C	1.20 Typ.		0.049 Typ.	
E	0.45	0.65	0.018	0.026
F	2.60	2.80	0.102	0.110
G	0.60	0.80	0.024	0.031
H	0.05	0.15	0.002	0.006
J	0.20 Typ.		0.008 Typ.	
K	6.60	7.00	0.260	0.276
L	5.10	5.50	0.201	0.217
M	0.90	1.10	0.035	0.043

**Not Recommended**

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