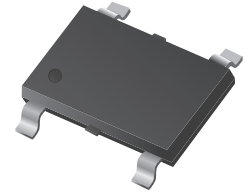


Surface Mount Bridge Rectifier

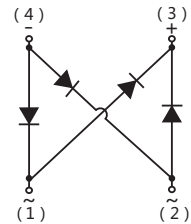
Features

- Reverse Voltage 2000V
- Forward Current 1 A
- High Surge Current Capability
- Designed for Surface Mount Application
- Lead free in comply with EU RoHS 2011/65/EU directives



Mechanical Data

- Case : SOP-4B
- Terminals: Solderable per MIL-STD-750, Method 2026



Ordering Information

Part Number	Marking	Shipping	Reel
LT4P20-10-TR5	LT4P20-10	5000PCS Tape&Reel	13 inches

Maximum Ratings and Electrical Characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20 %.

Parameter	Symbol	LT4P20-10	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	2000	V
Maximum RMS voltage	V_{RMS}	1400	V
Maximum DC Blocking Voltage	V_{DC}	2000	V
Average Rectified Output Current at $T_c = 125\text{ °C}$	I_o	1	A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	30	A
Maximum Forward Voltage at 1.0 A	V_F	1.2	V
Maximum DC Reverse Current at Rated DC Blocking Voltage @ $T_A=25\text{ °C}$ @ $T_A=125\text{ °C}$	I_R	1 100	μA
Typical Junction Capacitance (Note1)	C_j	20	pF
Operating and Storage Temperature Range	T_j, T_{stg}	-55 ~ +150	°C

Note: 1. Measured at 1MHz and applied reverse voltage of 4 V D.C.

Characteristic Curves

Fig.1 Average Rectified Output Current Derating Curve

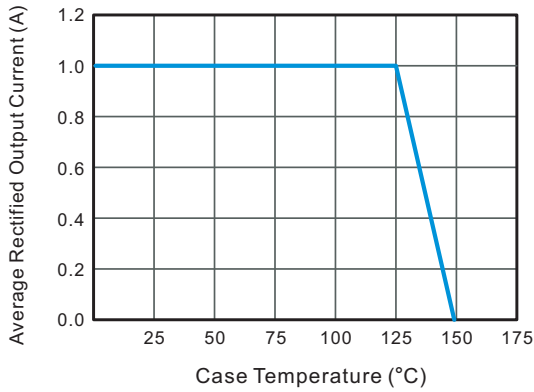


Fig.2 Typical Reverse Characteristics

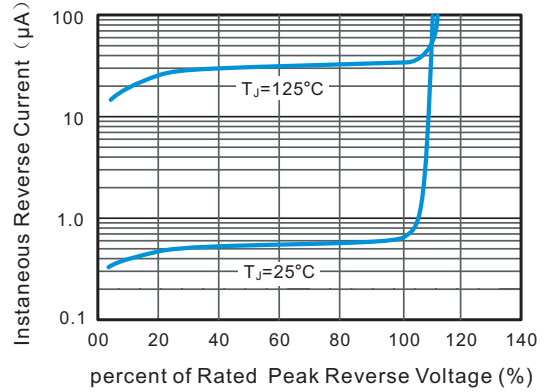


Fig.3 Typical Instantaneous Forward Characteristics

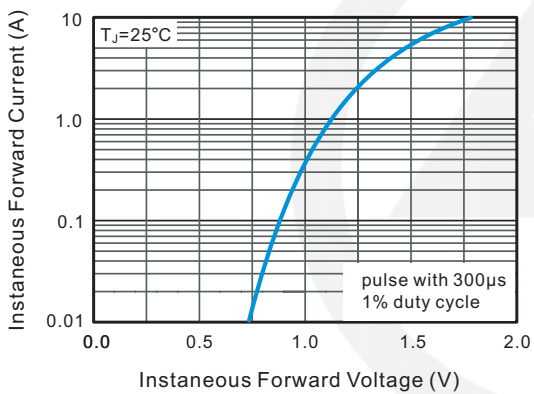


Fig.4 Typical Junction Capacitance

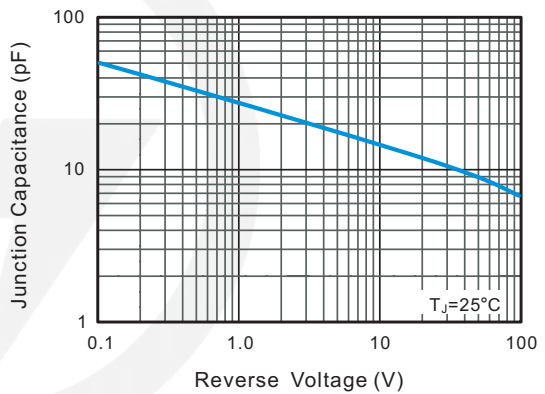
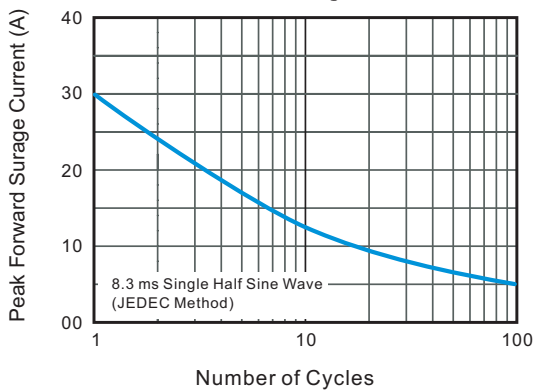
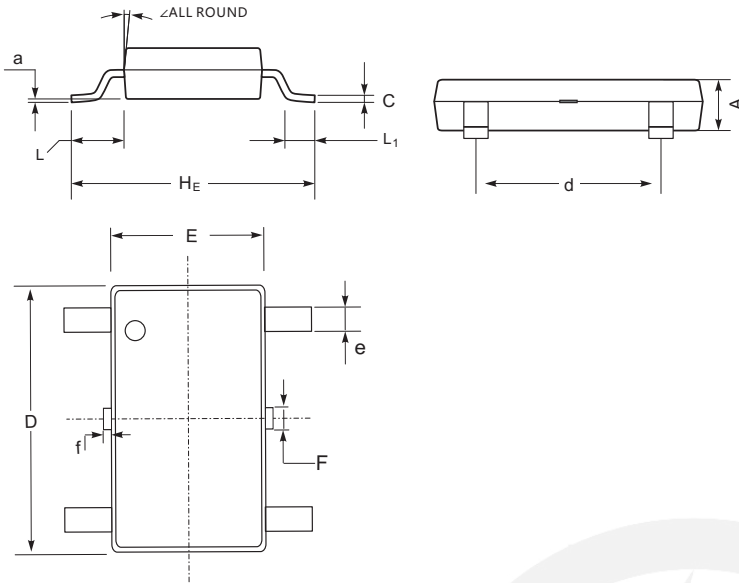


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



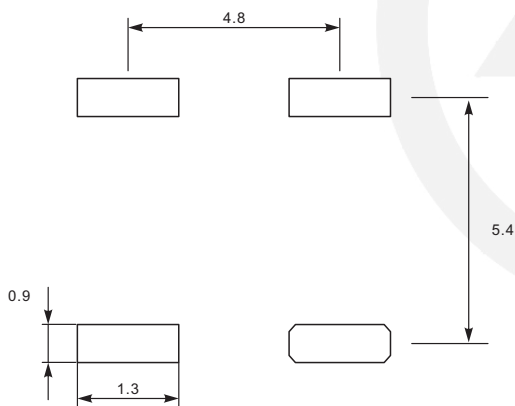
SOP-4B Package Outline

Unit: mm



SYMBOL	DIMENSIONS	
	MIN.	MAX.
A	1.05	1.25
C	0.15	0.22
D	6.10	6.30
E	3.60	4.10
HE	5.90	6.10
d	4.60	5.00
e	0.50	0.80
L	0.95	1.15
L ₁	0.40	0.80
a	0.2ref.	
F	0.8TYPICAL	
f	0.3TYPICAL	
∠	12°	

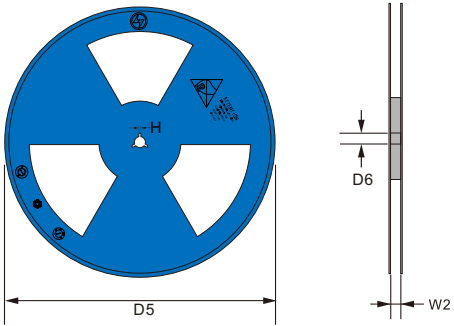
SOP-4B Suggested Pad Layout



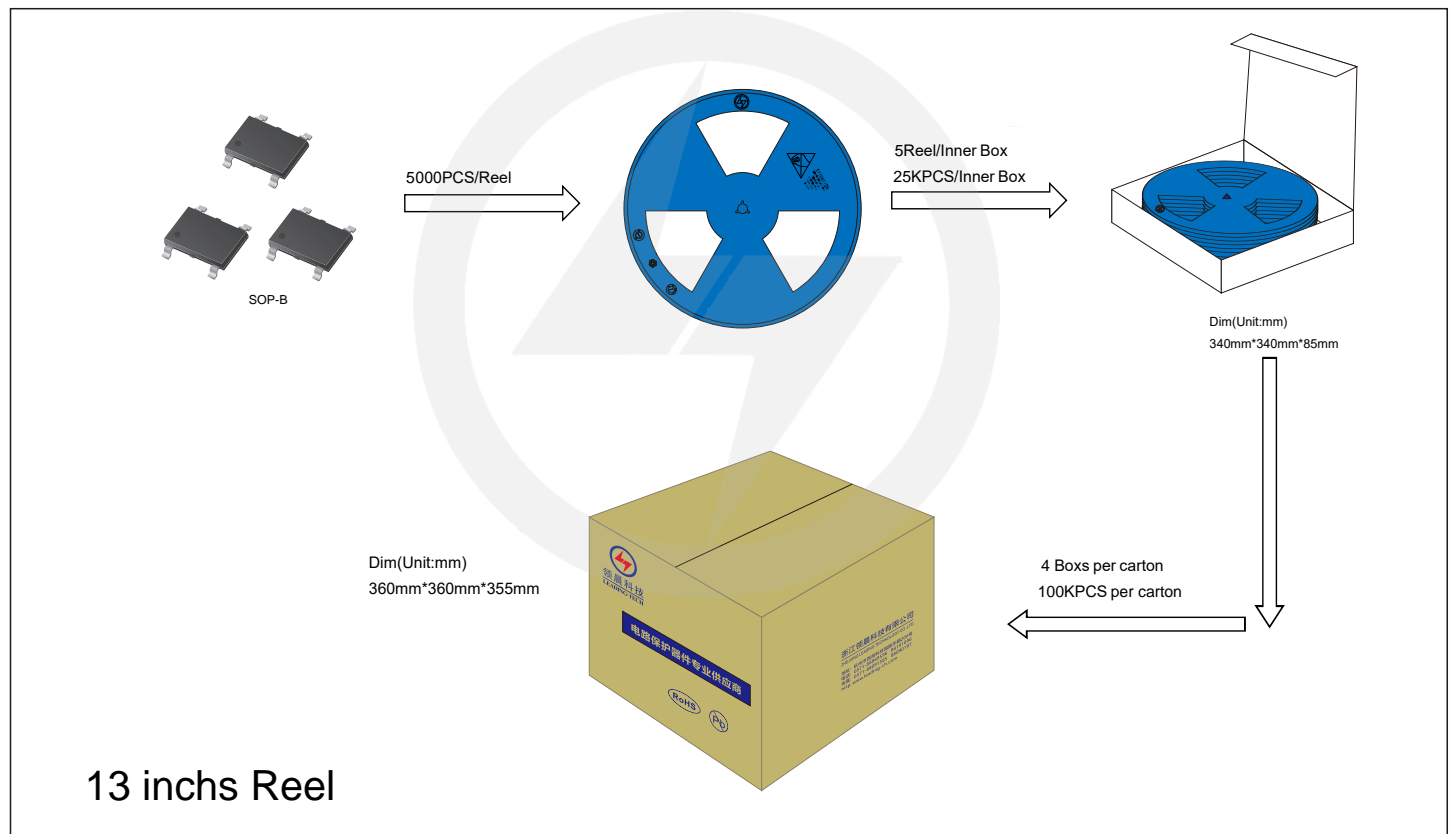
- Note:
1. Controlling dimension: in millimeters.
 2. General tolerance: $\pm 0.05\text{mm}$
 3. The pad layout is for reference purpose only.

Reel Dimensions

Unit : mm

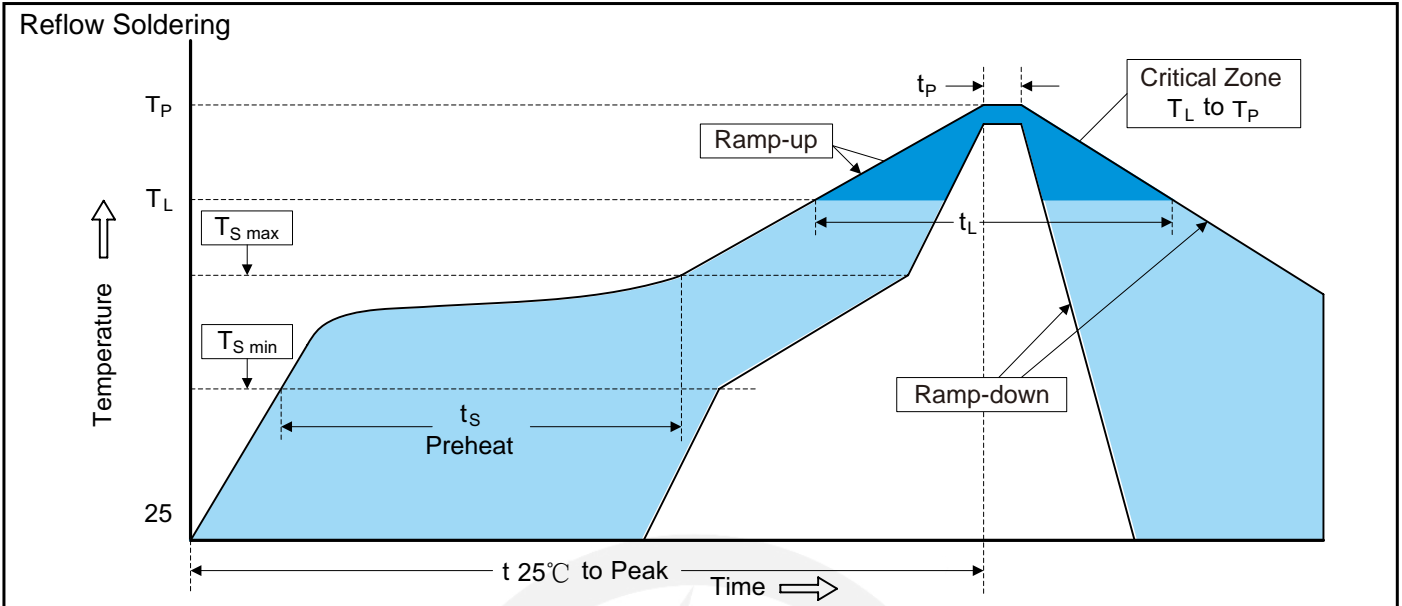
<p>13" Reel</p> 	D5	$\Phi 330.0 \pm 2.0$
	D6	$\Phi 13.5 \pm 0.5$
	H	2.5 ± 1.0
	W2	12 ± 2.0
	Quantity: 5000PCS	

Packaging





Recommended Soldering Conditions



Recommended Conditions

Profile Feature	Pb-Free Assembly
Average ramp-up rate (T _L to T _P)	3°C/second max.
Preheat	
-Temperature Min (T _{S min})	150°C
-Temperature Max (T _{S max})	200°C
-Time (min to max) (t _s)	60-180 seconds
T _{S max} to T _L	
-Ramp-up Rate	3°C/second max.
Time maintained above:	
-Temperature (T _L)	217°C
-Time (t _L)	60-150 seconds
Peak Temperature (T _P)	260°C
Time within 5°C of actual Peak Temperature (t _p)	20-40 seconds
Ramp-down Rate	6°C/second max.
Time 25°C to Peak Temperature	8 minutes max.

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Version Update Information

Series NO.	Enactment/Revision Date	Effective Date	Version	Revision content	Revision Reason	Revision Person	Note
01	2024.04.19	2024.04.19	3.0	New File	/	Ding	