

## Surface Mount Schottky Barrier Rectifier

### Features

- For surface mounted applications
- Metal silicon junction, majority carrier conduction
- Low power loss, high efficiency
- High forward surge current capability
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications
- Lead free in comply with EU RoHS 2011/65/EU directives



### Mechanical Data

- Case: SMA
- Terminal: Leads solderable per MIL-STD-750 Method 2026
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- Approx. Weight: 60mg

### Ordering Information

Part Number	Marking	Shipping	Reel
LT3A60-TR7K5	3S60W	7500PCS Tape&Reel	13 inches

### Maximum Ratings and Electrical Characteristics

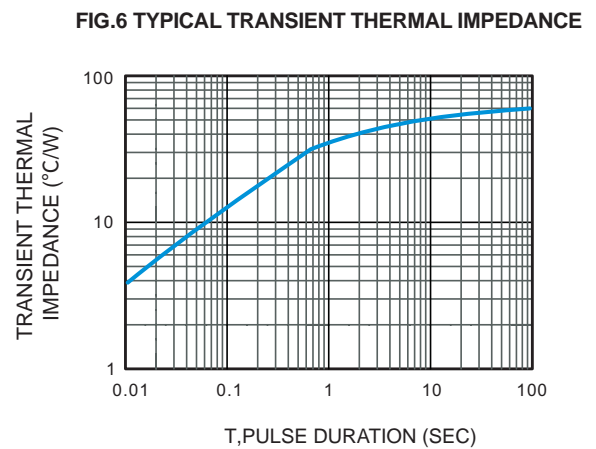
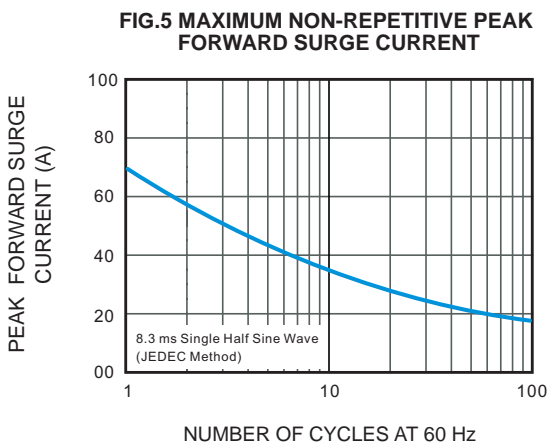
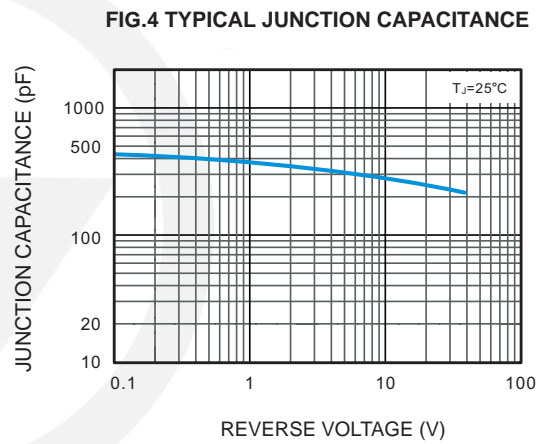
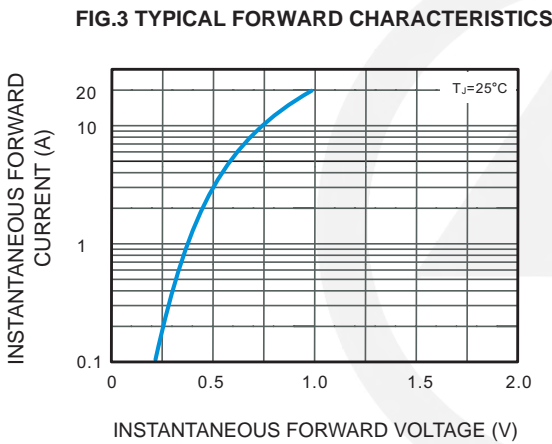
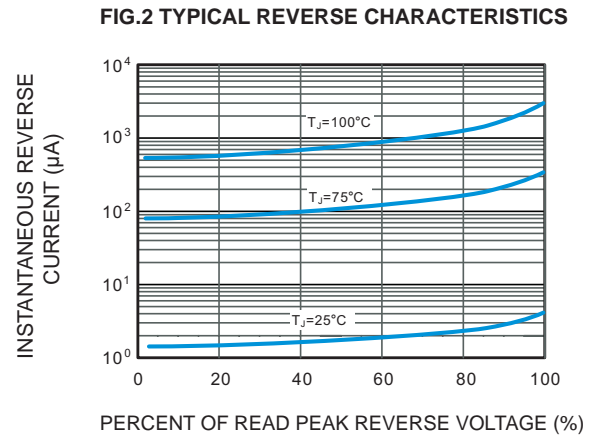
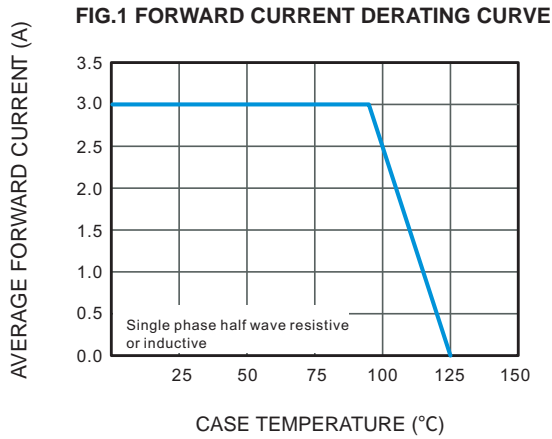
Ratings at 25°C ambient temperature unless otherwise specified.  
 Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

Rating	Symbol	LT3A60	Unit
Maximum repetitive peak reverse voltage	$V_{RRM}$	60	V
Maximum RMS voltage	$V_{RMS}$	42	V
Maximum DC blocking voltage	$V_{DC}$	60	V
Maximum average forward rectified current at $T_C = 100^\circ\text{C}$	$I_{F(AV)}$	3	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	70	A
Maximum instantaneous forward voltage at 3A	$V_F$	0.5	V
Maximum DC reverse current at rated DC blocking voltage $T_A = 25^\circ\text{C}$ $T_A = 100^\circ\text{C}$	$I_R$	0.5 5	mA
Typical junction capacitance (Note1)	$C_J$	400	pF
Typical thermal resistance (Note2)	$R_{\theta JA}$	60	$^\circ\text{C/W}$
Operating junction temperature range	$T_J$	-50 to +125	$^\circ\text{C}$
Storage temperature range	$T_{STG}$	-50 to +150	$^\circ\text{C}$

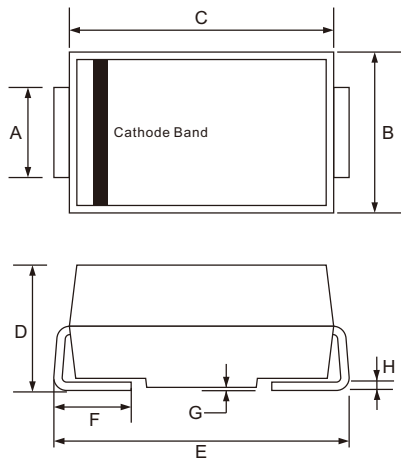
Note: (1) Measured at 1 MHz and applied reverse voltage of 4V D.C.  
 (2) P.C.B. mounted with 2.0" x 2.0" (5cm x 5cm) copper pad areas.



Characteristics Curves



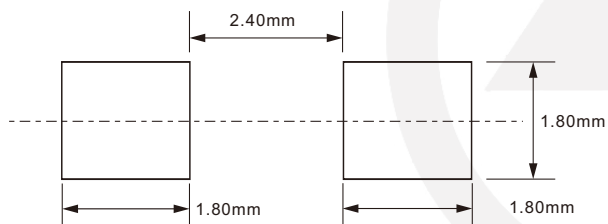
## SMA Package Outline



Unit: mm

SYMBOL	DIMENSIONS	
	MIN.	MAX.
A	1.25	1.65
B	2.30	2.79
C	4.00	4.75
D	1.90	2.50
E	4.70	5.28
F	0.76	1.52
G	0.20 TYP.	
H	0.15	0.31

## SMA Suggested Pad Layout

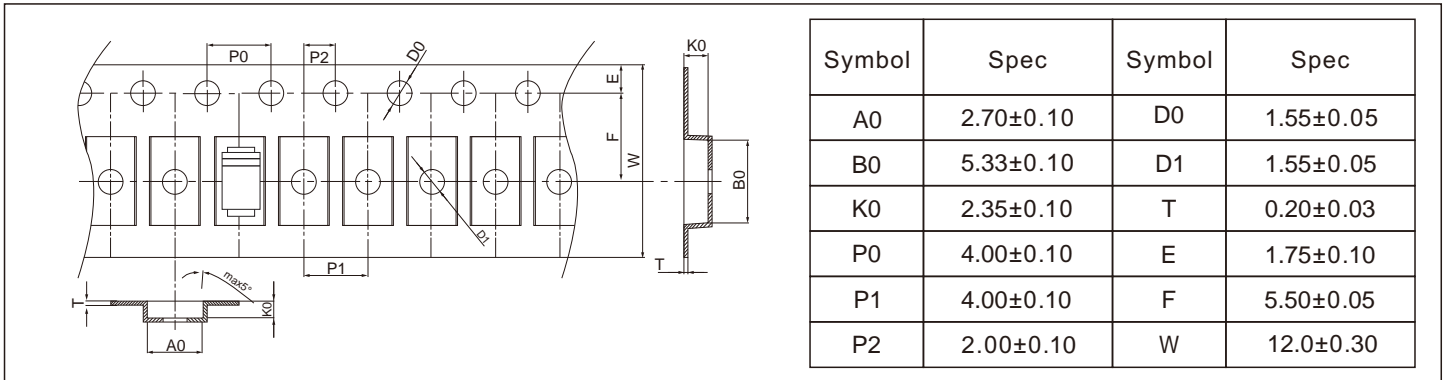


Note:

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

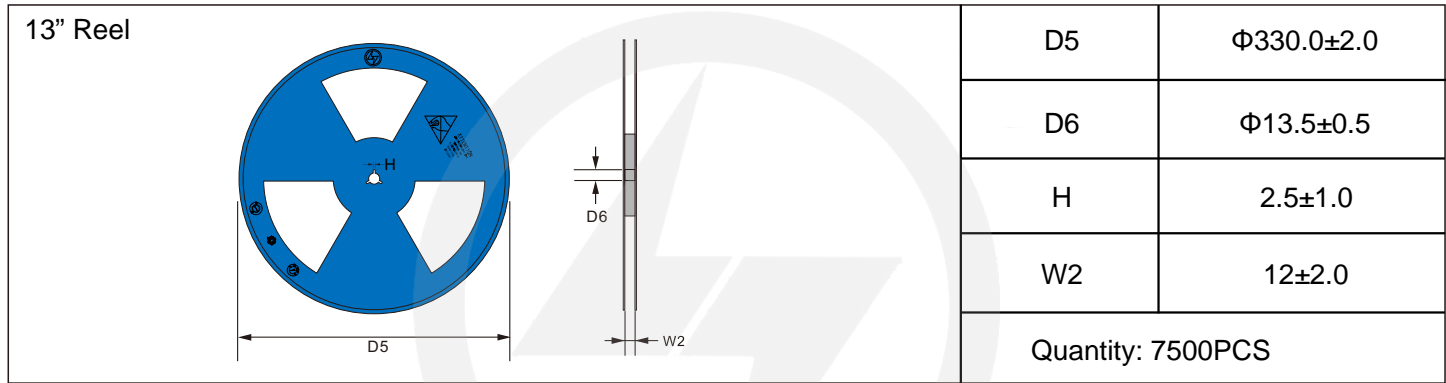
**Carrier Tape Dimensions**

Unit : mm

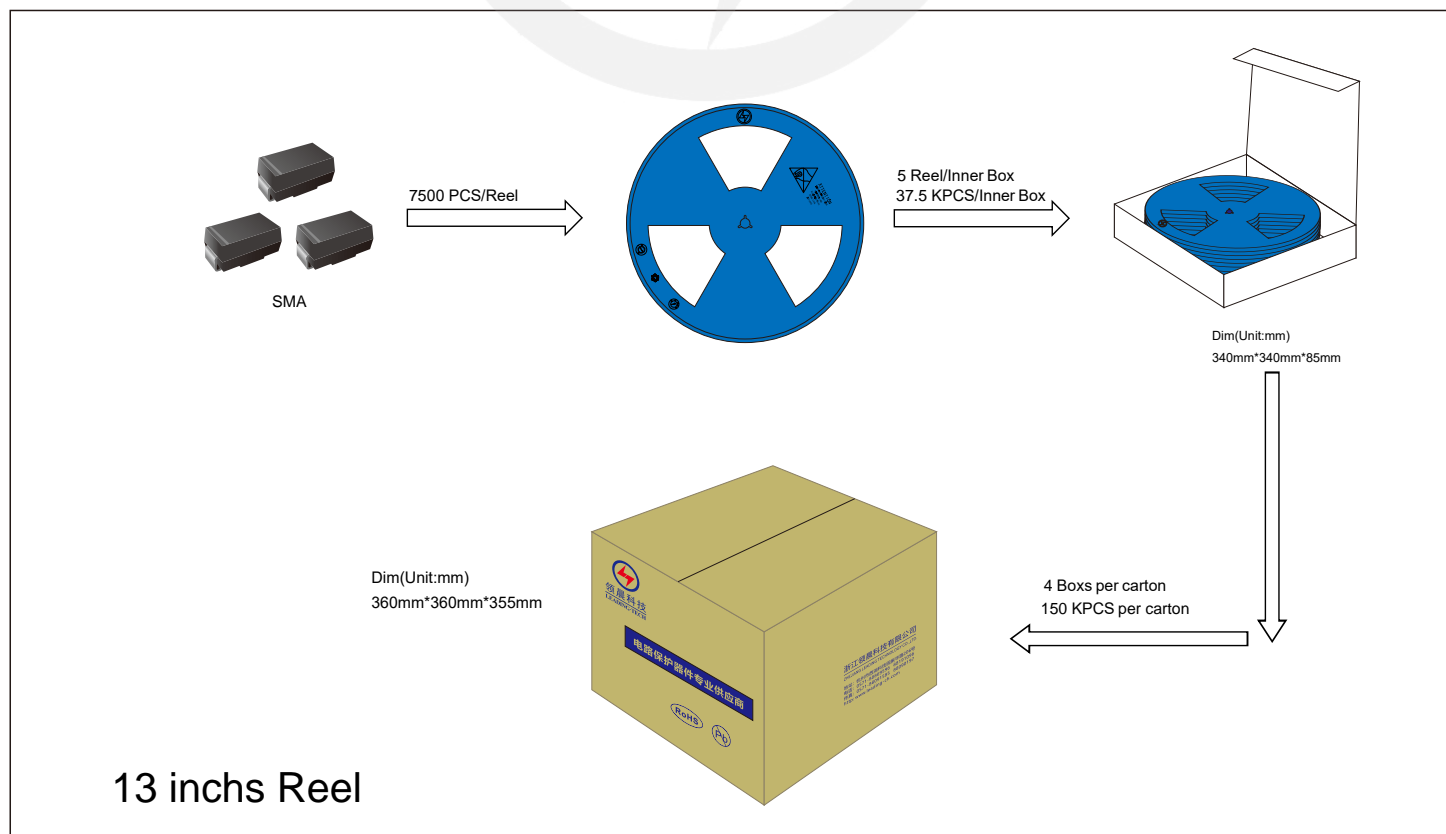


**Reel Dimensions**

Unit : mm

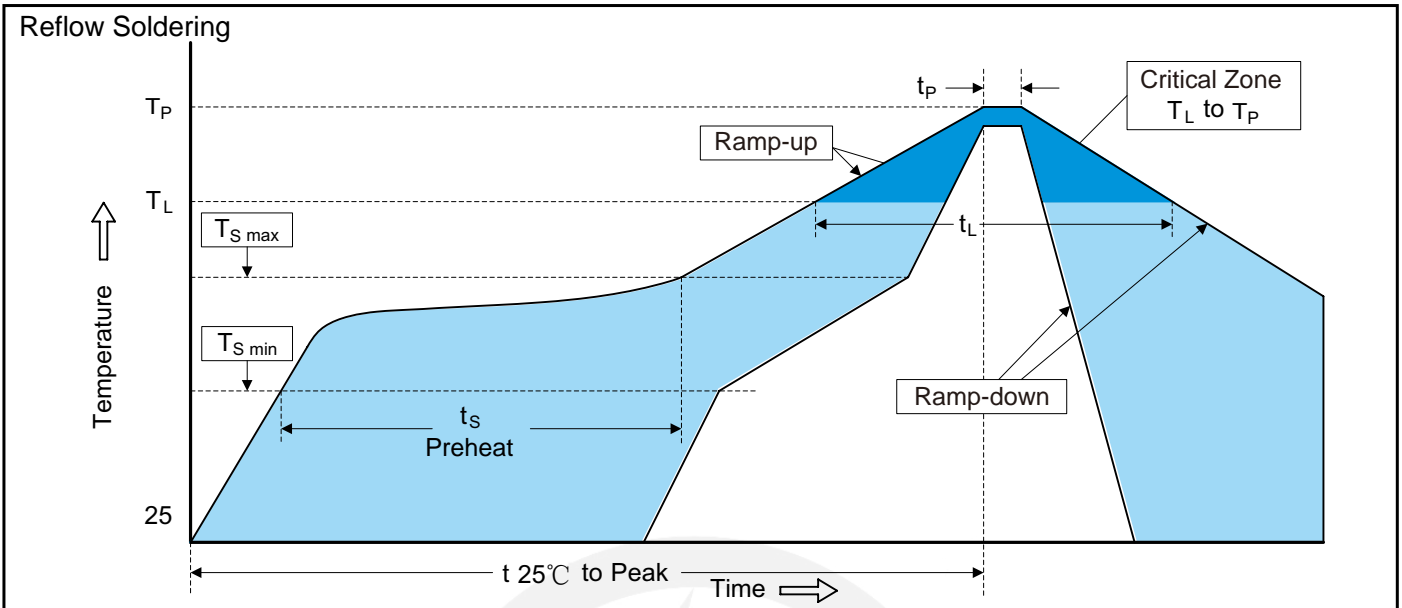


**Packaging**





Recommended Soldering Conditions



Recommended Conditions

Profile Feature	Pb-Free Assembly
Average ramp-up rate (T <sub>L</sub> to T <sub>P</sub> )	3°C/second max.
Preheat	
-Temperature Min (T <sub>S min</sub> )	150°C
-Temperature Max (T <sub>S max</sub> )	200°C
-Time (min to max) (t <sub>s</sub> )	60-180 seconds
T <sub>S max</sub> to T <sub>L</sub>	
-Ramp-up Rate	3°C/second max.
Time maintained above:	
-Temperature (T <sub>L</sub> )	217°C
-Time (t <sub>L</sub> )	60-150 seconds
Peak Temperature (T <sub>P</sub> )	260°C
Time within 5°C of actual Peak Temperature (t <sub>p</sub> )	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	2025.06.10	2025.06.10	3.0	New file	/	Ding	