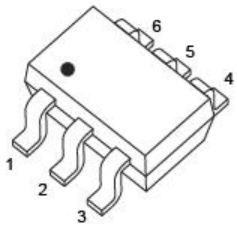
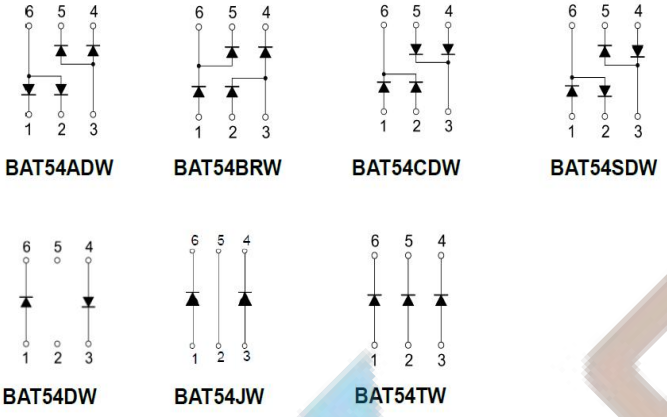
Features

- Fast Switching Speed
- Low Forward Voltage Drop
- PN Junction Guard Ring for Transient and ESD Protection
- Available in Lead Free Version
- SOT363 Package
- Moisture Sensitivity Level 3



MARKING:



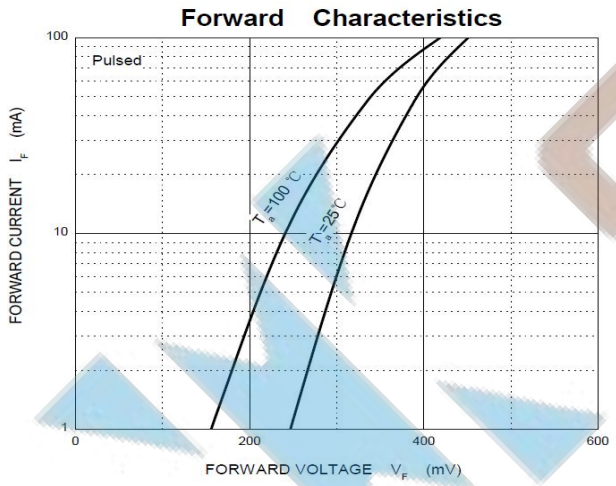
Maximum Ratings & Thermal Characteristics (Ratings at 25℃ ambient temperature unless otherwise specified.)

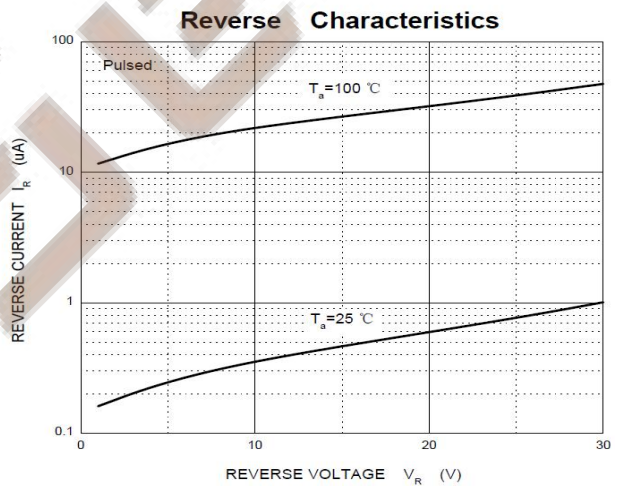
Parameter	Symbols	Value	Units
Peak Repetitive Peak Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	VRRM VRWM VR	30	V
Average Rectified Output Current	IO	200	mA
Non-Repetitive Peak Forward Surge Current @t=8.3ms	IFSM	600	mA
Repetitive Peak Forward Current	IFRM	300	mA
Power Dissipation	Pd	200	mW
Thermal Resistance from Junction to Ambient	R θ JA	500	℃/W
Junction Temperature	Tj	125	℃
Storage Temperature	Tstg	-55-+150	℃

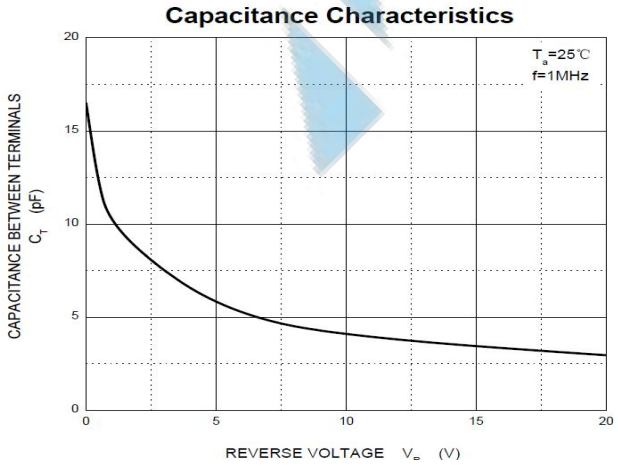
Electrical Characteristics(Ta=25℃ unless otherwise noted)

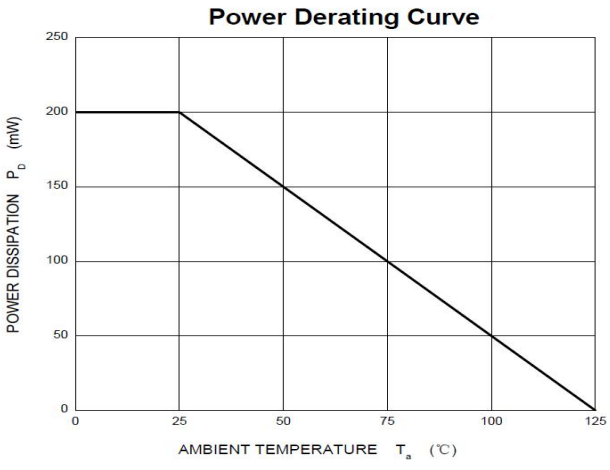
Symbols	Parameter	Conditions	Limits		Unit
			Min.	Max.	
V(BR)R	Reverse Breakdown Voltage	IR=100uA	30	---	V
IR	Reverse Leakage Current	VR=25V	---	2	uA
VF	Forward Voltage	IF=1mA	---	320	mV
		IF=10mA		400	
		IF=30mA		500	
		IF=100mA	---	1000	
TRR	Reverse Recovery Time	IF= IR=10mA, Irr=0.1×IR RL=100Ω	---	5	nS
C	Capacitance	VR=1V, f=1MHZ	---	10	pF

Typical characteristics



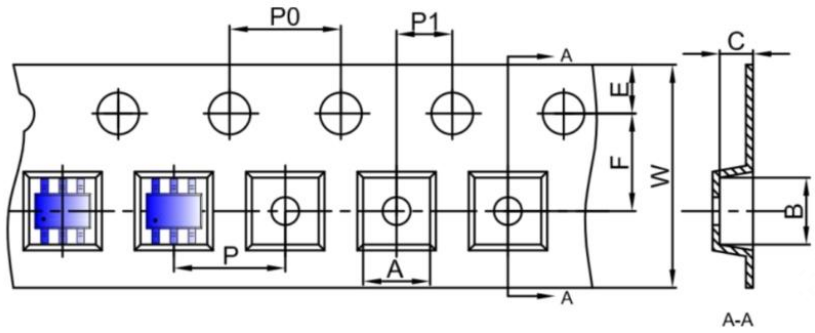




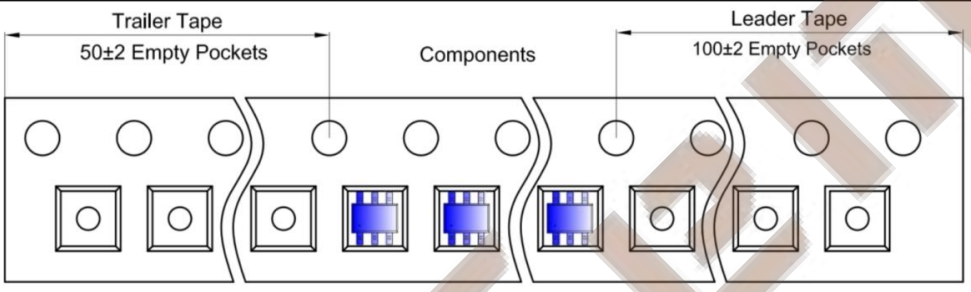


Package Information

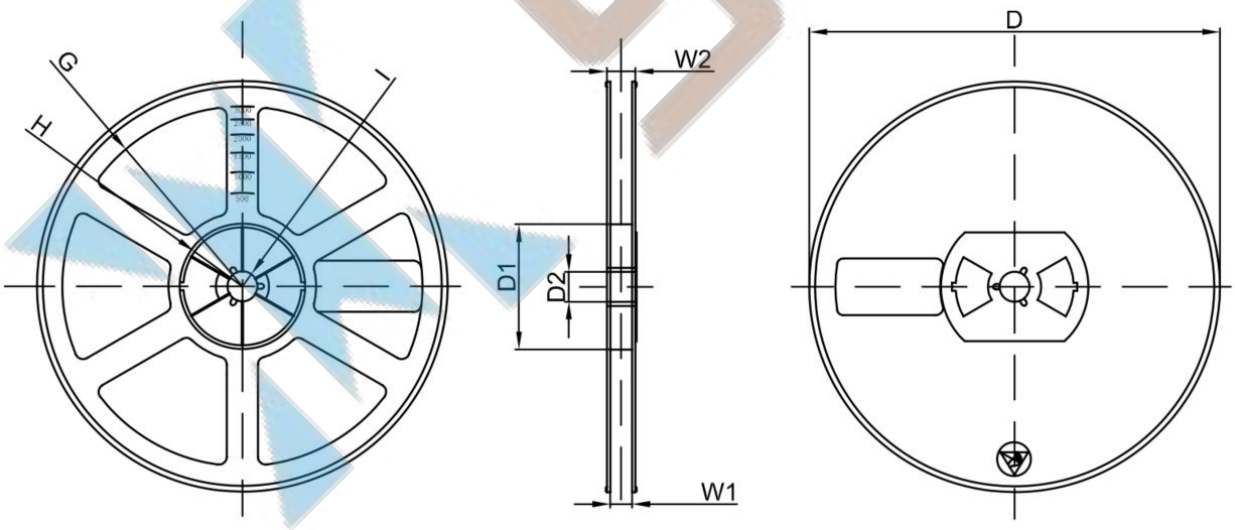
Carrier Dimension(mm)



Dimensions are in millimeter										
Pkg Type	A	B	C	d	E	F	P0	P	P1	W
SOT-363	2.25	2.55	1.20	Ø1.50	1.75	3.50	4.00	4.00	2.00	8.00



Reel Dimension(mm)



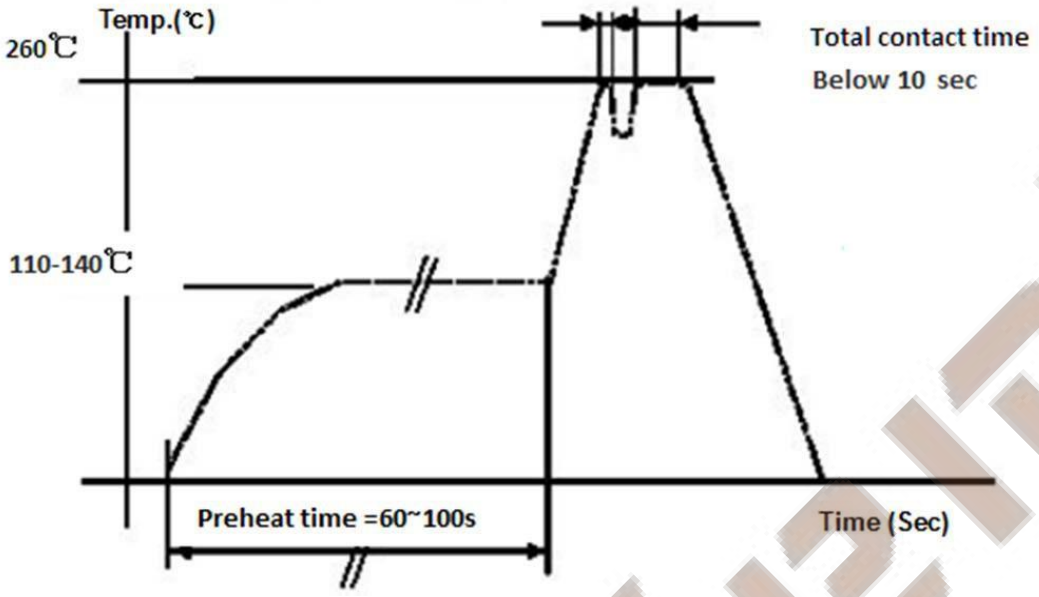
Reel Option	D	D1	D2	G	H	I	W1	W2
7"Dia	Φ178.00	54.40	13.00	R78.00	R25.60	R6.50	9.50	12.30
Tolerance	±2	±1	±1	±1	±1	±1	±1	±1

Package Specifications

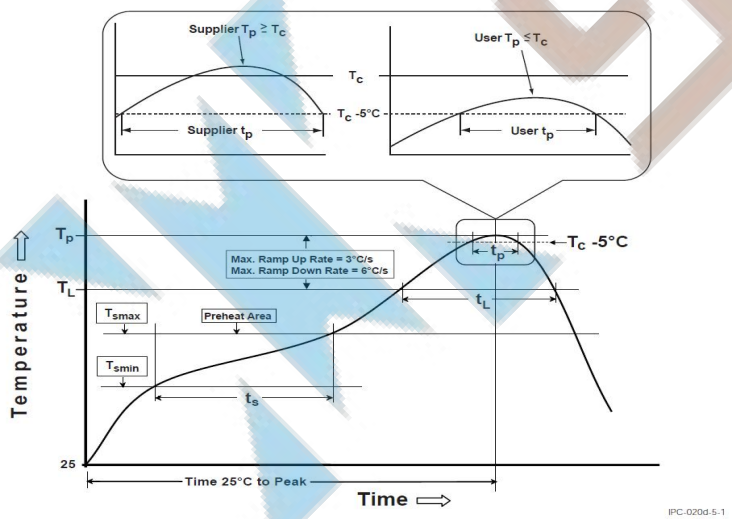
Package	Reel Size	Reel DIA. (mm)	Q'TY/Reel (Kpcs)	Box Size (mm)	QTY/Box (Kpcs)	Carton Size (mm)	Q'TY/Carton (Kpcs)
SOT363	7'	178	3	210*208*203	45	440*400*230	180

Recommended Soldering Profile for Rectifier Diodes (Pb Free)

a) Wave Soldering Profile



b) Reflow Soldering Profile (Pb Free Application), refer to IPC/JEDEC J-STD-020

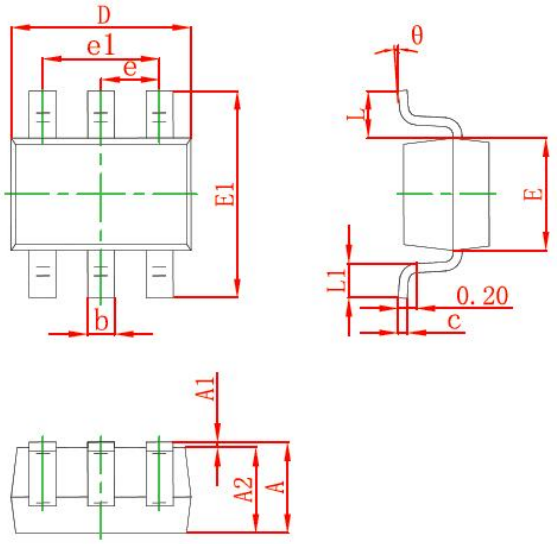


Preheat/Soak Temperature Min (Tsmin) Temperature Max (Tsmax) Time (ts) from (Tsmin to Tsmax)	50 °C 200 °C 60-120 seconds
Melting Point of Solder (Sn Ag Cu)	217℃
Ramp-up Rate to 217℃(Melting Point of Solder)	3℃/sec
Time at Temp.>217℃ (Melting Point of Solder)	60~150 Sec
Peak Temperature	255±5℃
Time within 5℃below Peak Temp.	20~40 Sec
Cooling Rate	6℃/sec (max)
Time from 25℃ to Peak Temp.	8min (max)

c) Manual Soldering

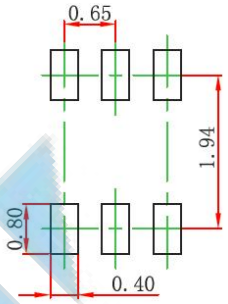
When using an electric soldering iron for manual soldering, it is recommended that the temperature does not exceed 300°C and the soldering time is less than 10 seconds.

Package Mechanical Data



Symbol	Dimensions In Millimeters	
	Min	Max
A	0.900	1.100
A1	0.000	0.100
A2	0.900	1.000
b	0.150	0.350
c	0.100	0.150
D	2.000	2.200
E	1.150	1.350
E1	2.150	2.400
e	0.650 TYP	
e1	1.200	1.400
L	0.525 REF	
L1	0.260	0.460
θ	0°	8°

Suggested Pad Layout



Note:
1.Controlling dimension:in millimeters.
2.General tolerance:±0.05mm.
3.The pad layout is for reference purposes only.

Disclaimer

The information presented in this document is for reference only. Yancheng **Xirun Semiconductor Co., Ltd** reserves the right to make changes without notice for the specification of the products displayed herein to improve reliability, function or design or otherwise.

The product listed herein is designed to be used with ordinary electron ic equipment or devices, and not designed to be used with equipment or devices which require high level of reliability and the malfunction of with would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), **Xirun Semiconductor** or anyone on its behalf, assumes no responsibility or liability for any damages resulting from such improper use of sale.

This publication supersedes & replaces all information previously supplied. For additional information, please visit our website http:// www.x-semi.cn , or consult your nearest **Xirun Semiconductor's** sales office for further assistance.