

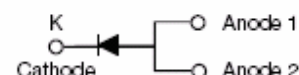
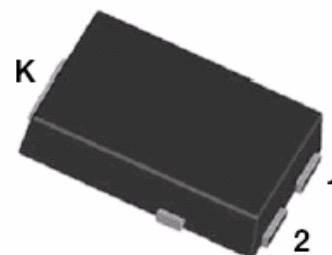
ST1545S SCHOTTKY RECTIFIER

Applications:

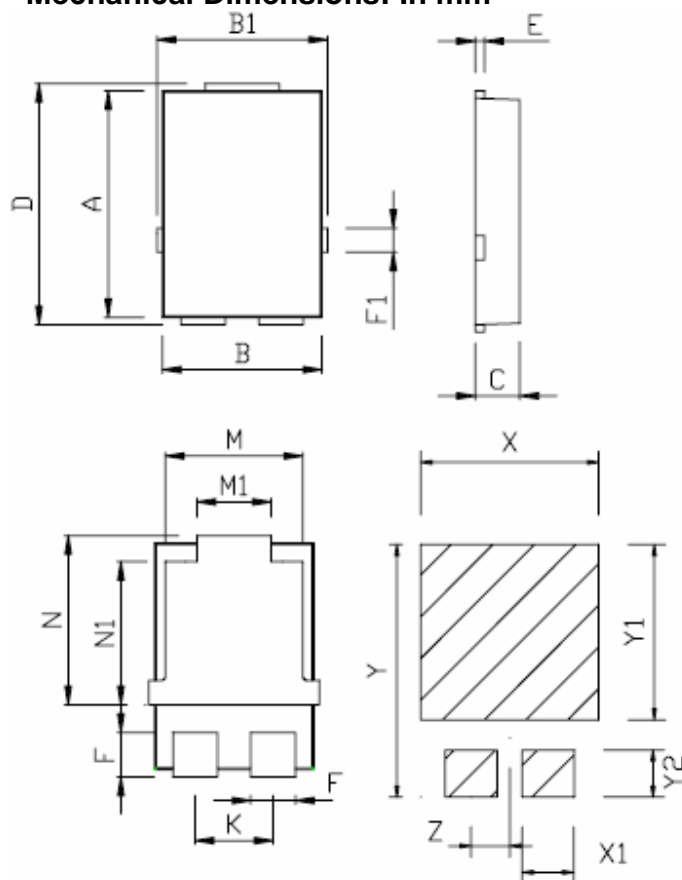
- Switching power supply
- Converters
- Free-Wheeling diodes
- Reverse battery protection

Features:

- 200°C T_J operation
- Center tap configuration
- Ultralow forward voltage drop
- High purity, high temperature epoxy encapsulation for enhanced mechanical strength and moisture resistance
- High frequency operation
- Guard ring for enhanced ruggedness and long term reliability
- This is a Pb – Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

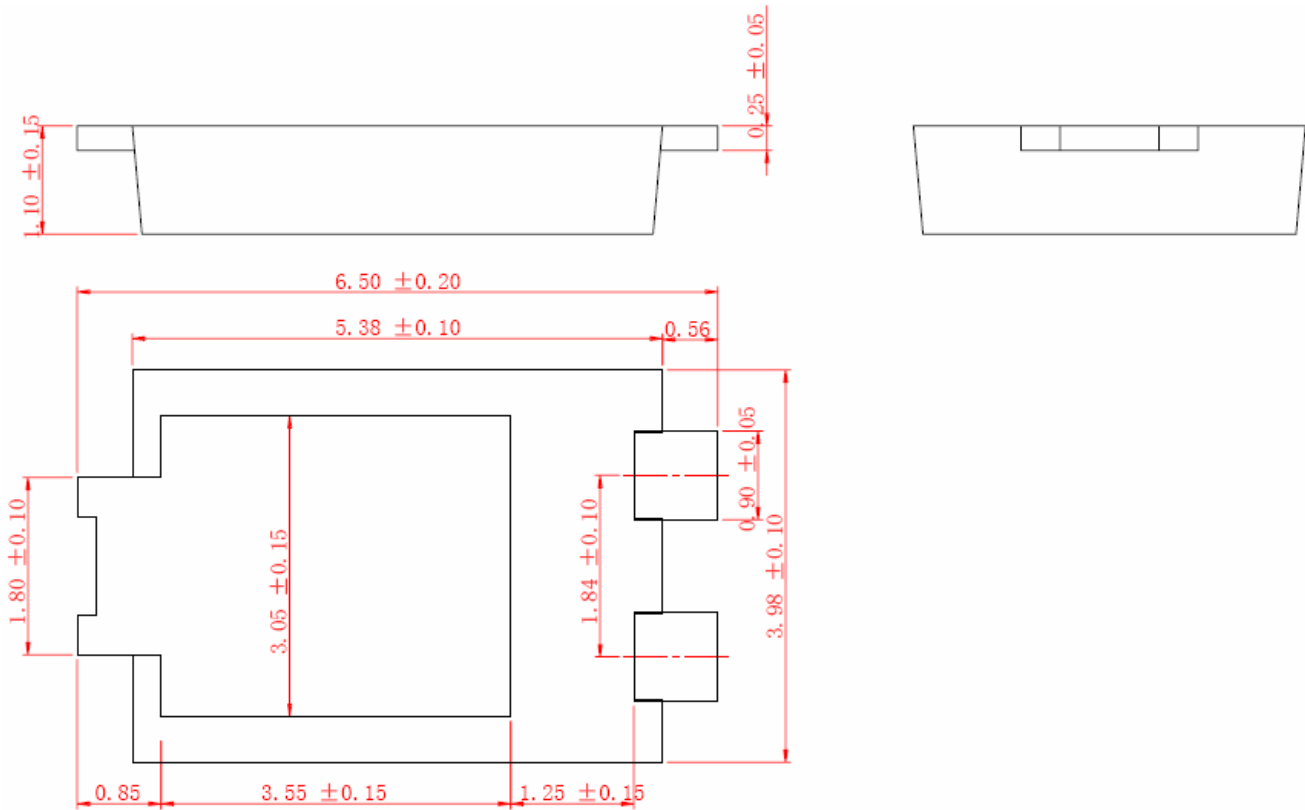


Mechanical Dimensions: In mm



TO-277A		
Dim	Min	Max
A	5.90	6.30
B	4.10	4.50
B1	4.40	4.80
C	1.05	1.35
D	6.25	6.75
E	0.15	0.35
F	0.90	1.30
F1	0.65 nom	
K	1.90	2.30
M	3.30	3.70
M1	1.80	2.20
N	4.40	4.80
N1	3.70	4.10
X	4.80min	
X1	1.40min	
Y	6.80	
Y1	4.72min	
Y2	1.27min	
Z	1.04min	
All Dimensions in mm		

TO-277A(YH)



TO-277B(JK)

Marking Diagram:



Where XXXXX is YYWWL

- S = Device Type
- T = Ultralow VF
- 15 = Forward Current (15)
- 45 = Reverse Voltage (45V)
- S = Package type
- YY = Year
- WW = Week
- L = Lot Number

Cautions: Molding resin
Epoxy resin UL:94V-0

Ordering Information:

Device	Package	Shipping
ST1545S	TO-277A/TO-277B (Pb-Free)	4000pcs/ reel

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specification.

Maximum Ratings:

Characteristics	Symbol	Condition	Max.	Units
Peak Inverse Voltage	V_{RWM}	-	45	V
Average Forward Current	$I_{F(AV)}$	50% duty cycle @ $T_C=80\text{ }^\circ\text{C}$ rectangular wave form	15	A
Peak One Cycle Non-Repetitive Surge Current (per leg)	I_{FSM}	8.3 ms, half Sine pulse	200	A



Electrical Characteristics:

Characteristics	Symbol	Condition	Typ.	Max.	Units
Forward Voltage Drop*	V _{F1}	@ 5A, Pulse, T _J = 25 °C	0.38	0.50	V
		@ 7.5A, Pulse, T _J = 25 °C	0.40	0.52	
		@ 15A, Pulse, T _J = 25 °C	0.46	0.58	
	V _{F2}	@ 5A, Pulse, T _J = 125 °C	0.25	0.39	V
@ 7.5A, Pulse, T _J = 125 °C	0.28	0.42			
@ 15A, Pulse, T _J = 125 °C	0.37	0.51			
Reverse Current (per leg)	I _{R1}	@V _R = rated V _R T _J = 25 °C	0.21	1.5	mA
Reverse Current (per leg) *	I _{R2}	@V _R = rated V _R T _J = 125 °C	150	150	mA
Junction Capacitance (per leg)	C _T	@V _R = 5V, T _C = 25 °C f _{SIG} = 1MHz	868	1000	pF
Voltage Rate of Change	dv/dt	-	-	10,000	V/μs

* Pulse Width < 300μs, Duty Cycle <2%

Thermal-Mechanical Specifications:

Characteristics	Symbol	Condition	Specification	Units
Junction Temperature	T _J	-	-55 to +200	°C
Storage Temperature	T _{stg}	-	-55 to +200	°C
Maximum Thermal Resistance Junction to Ambient	R _{θJA}	DC operation	75	°C/W
Approximate Weight	wt	-	0.093	g
Case Style	TO-277A/TO-277B			

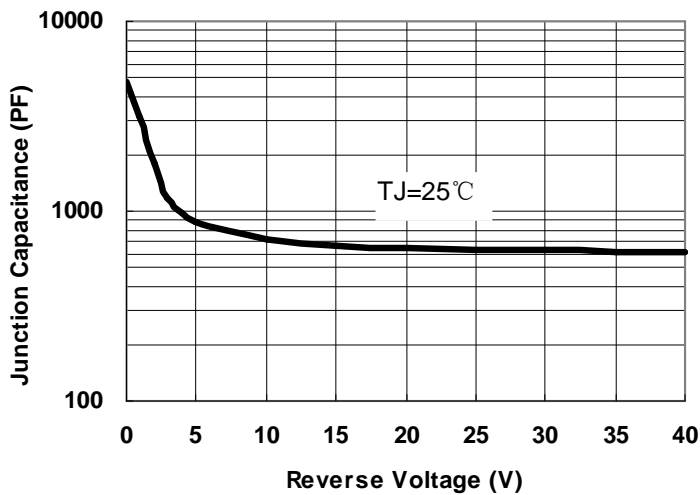


Fig.1-Typical Junction Capacitance

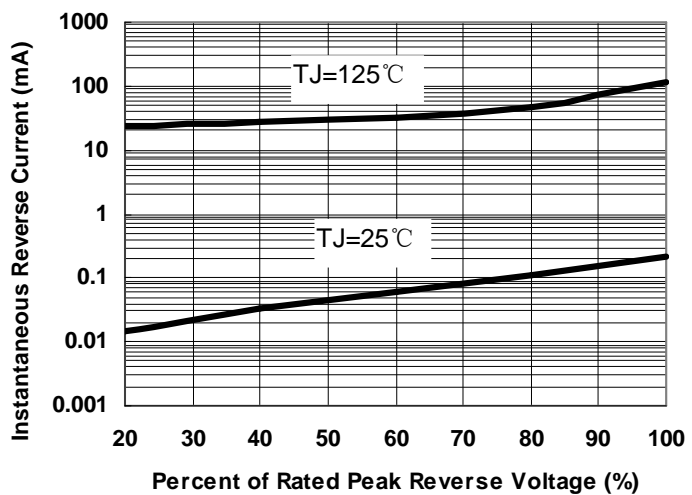


Fig.2-Typical Reverse Characteristics

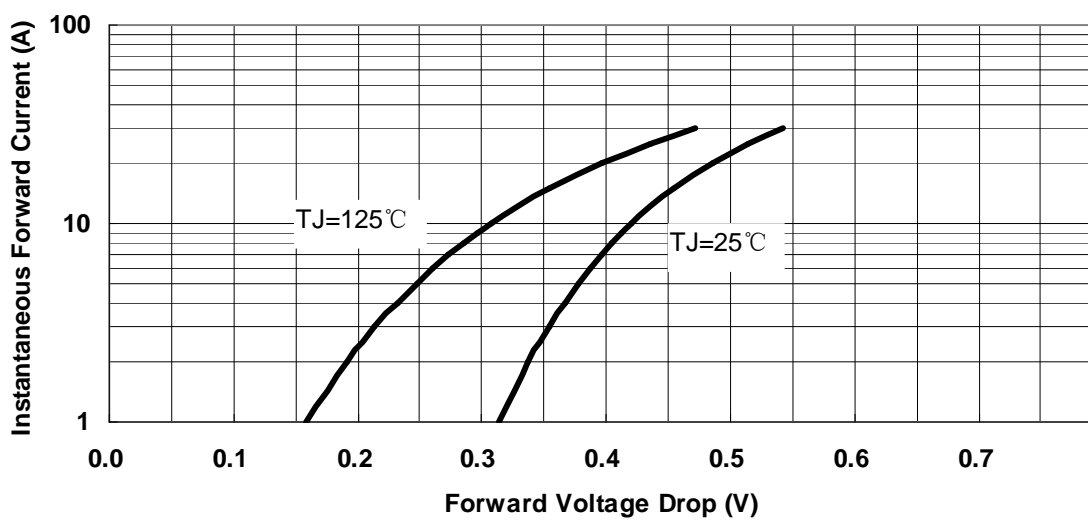


Fig.3-Typical Instantaneous Forward Voltage Characteristics



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