

TO-277 Plastic-Encapsulate Diodes

Schottky Rectifier

Features

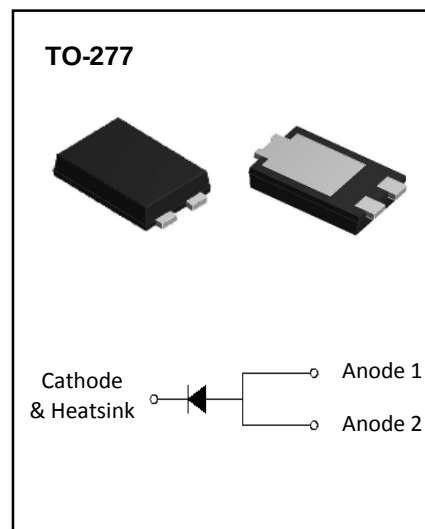
- I_O 5A
- V_{RRM} 150V
- High surge current capability
- Low V_f

Applications

- Rectifier

Marking

- ST5150L



MAXIMUM RATINGS

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

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	150	V
Average Forward Rectified Current	$I_{F(AV)}$	5	A
Peak Forward Surge Current (8.3 ms single half sine-wave superimposed on rated load)	I_{FSM}	120	A
Operating Junction Temperature Range	T_J	-55 to +150	$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150	$^{\circ}\text{C}$

ELECTRICAL CHARACTERISTICS

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

Parameter	Test Conditions	Symbol	Value		Unit
			Typ.	Max.	
Forward Voltage @ $I_F=5\text{A}$	$T_A=25^{\circ}\text{C}$	V_F	0.74	0.77	V
	$T_A=125^{\circ}\text{C}$		0.67	0.7	
Reverse Current @ V_{RRM}	$T_A=25^{\circ}\text{C}$	I_R	5	20	μA
	$T_A=125^{\circ}\text{C}$		10	50	mA
Typical Thermal Resistance	Junction to Ambient	$R_{\theta JA}$	30		$^{\circ}\text{C}/\text{W}$

FIG.1: Forward Output Current Derating Curve

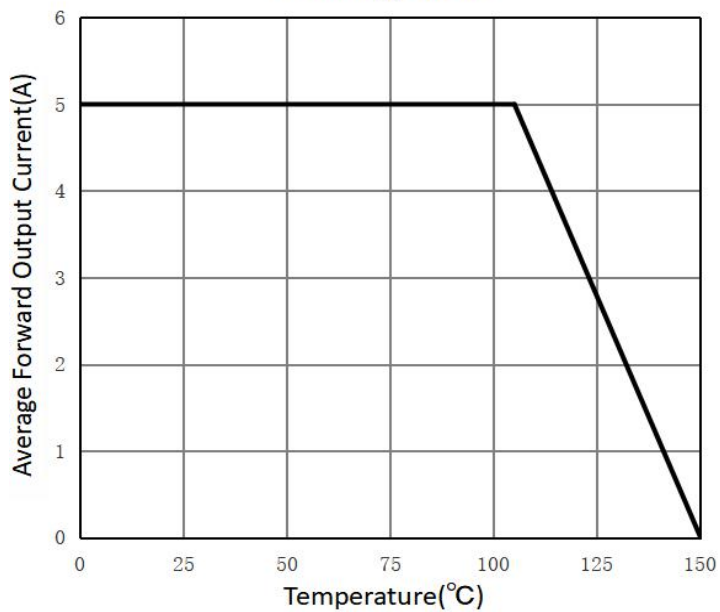


FIG.2: Maximum Non-Repetitive Peak Forward Surge Current

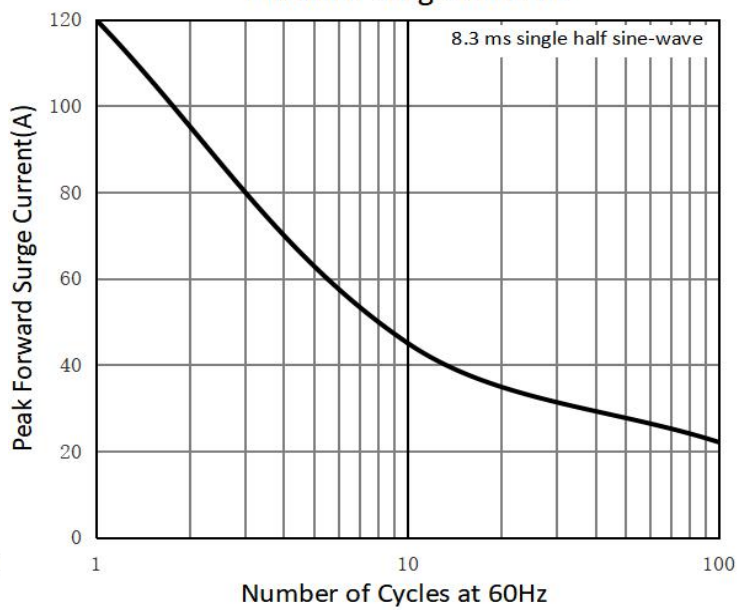


FIG.3: Typical Instantaneous Forward Characteristics

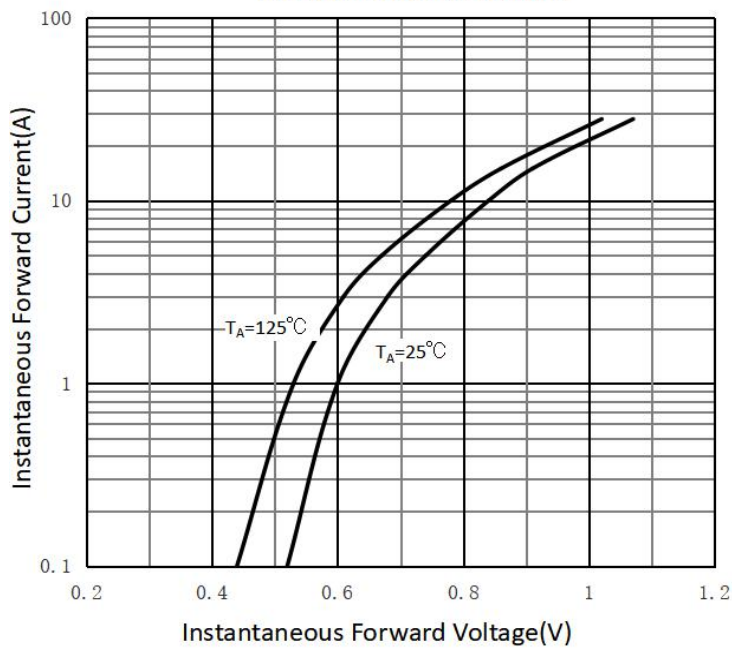
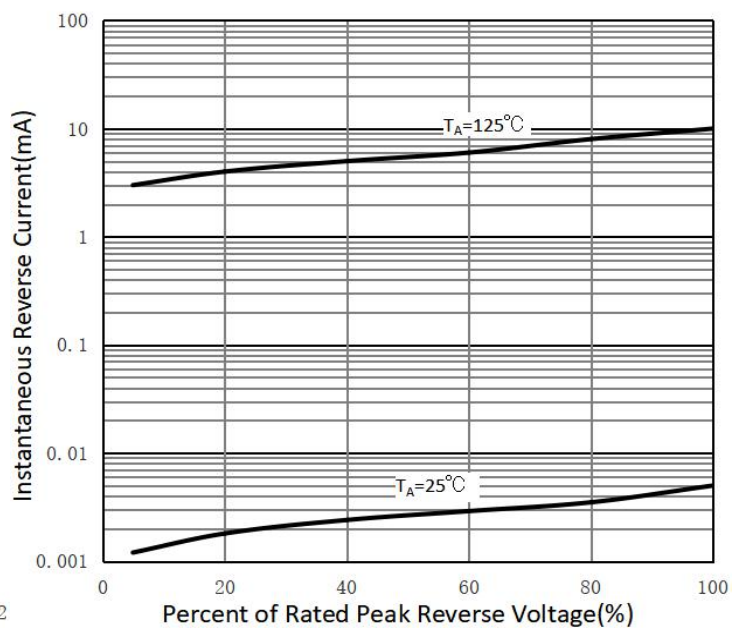
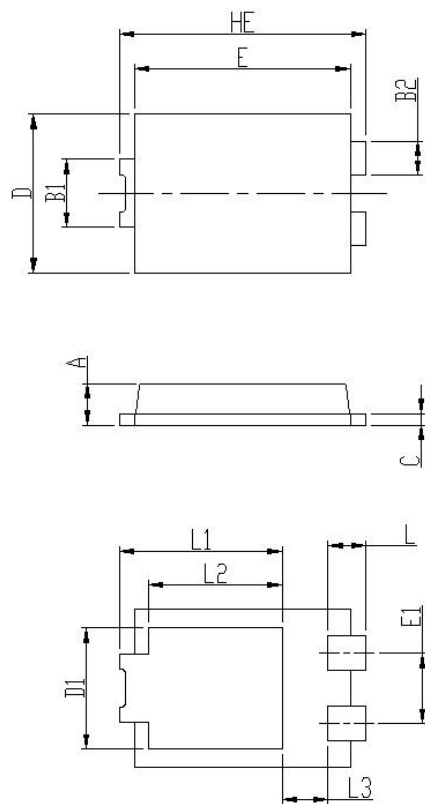


FIG.4: Typical Reverse Characteristics

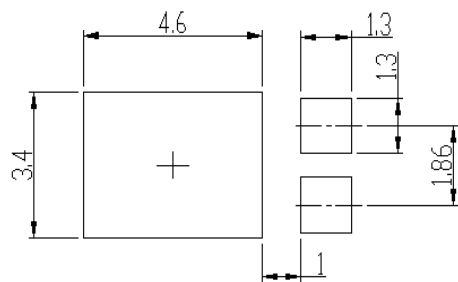


TO- 277 Package Outline Dimensions



DIM	Unit:mm		Unit:inch	
	MIN	MAX	MIN	MAX
HE	6.4	6.6	0.252	0.260
E	5.6	5.8	0.220	0.228
D	4.1	4.3	0.161	0.169
B1	1.7	1.9	0.067	0.075
B2	0.8	1	0.031	0.039
A	1.05	1.2	0.041	0.047
C	0.3	0.4	0.012	0.016
L	0.85	1.1	0.033	0.043
L1	4.2	4.4	0.165	0.173
L2	3.52Typ.		0.139Typ.	
L3	1.1	1.4	0.043	0.055
D1	3	3.3	0.118	0.130
E1	1.86Typ.		0.073Typ.	

TO- 277 Suggested Pad Layout



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

NOTICE

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