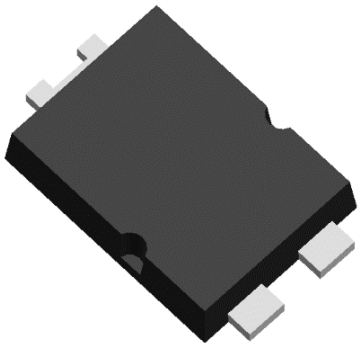
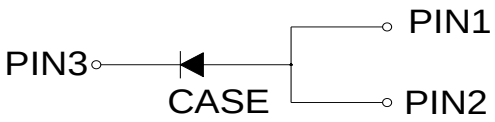
Schottky Rectifier





Features

- Ideal for automated placement
- Low power losses
- High forward surge capability
- Meets MSL level1, per J-STD-020, LF maximum peak of 260 °C

Typical Applications

For use in lighting, fast switching rectification of power suppliers, inverters, converters, and freewheeling diodes for consumer, automotive, and telecommunication.

Mechanical Data

- **Package**:TO-277
  Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant, Halogen free
- **Terminals**: Tin plated leads, solderable per J-STD-002 and JESD22-B102

■Maximum Ratings (T_a=25℃ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	SS15U45P
Device marking code			SS15U45P
Repetitive Peak Reverse Voltage	V_{RRM}	V	45
Average Rectified Output Current @60Hz -sine wave, R- load, Tc(FIG.1)	I_O	A	15
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave,1 cycle, Ta=25℃	I_{FSM}	A	300
Current Squared Time @1ms≤t≤8.3ms Tj=25℃	I^2t	A^2s	375
Storage Temperature	T_{stg}	℃	-55 ~+150
Junction Temperature	T_J	℃	-55 ~+150

■Electrical Characteristics (T_a=25℃ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	Min	Typ	Max
Peak Forward Voltage	V_{FM}	V	I_{FM} =5A, T_J=25℃	-	0.43	0.55
			I_{FM} =15A, T_J=25℃	-	0.54	0.8
Reverse Breakdown Voltage	V_{BR}	V	I_R=0.5mA	45	-	-
Leakage Current	I_R	mA	V_R=45V，T_J=25℃	-	-	0.1
			V_R=45V，T_J=100℃	-	-	50

Note1:Pulse test:300uS pulse widh,1% duty cycle
Note2:Pulse test:pulse widh 40mS

■Thermal Characteristics (T_a=25℃ Unless otherwise specified)

PARAMETER		SYMBOL	UNIT	SS15U45P
Thermal Resistance	Junction to Case	$R_{\theta J-A}$	℃/W	90
		$R_{\theta J-C}$	℃/W	8

■Ordering Information (Example)

PREFERED P/N	PACKAGE CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
SS15U45P	F1	Approximate 0.106	5000	80000	13” reel

■ Characteristics (Typical)

Fig.1:I_O-T_C Curve

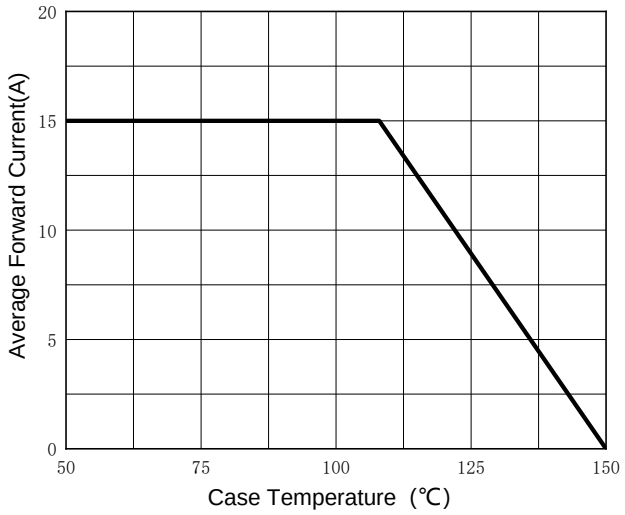


Fig.2:Forward Surge Current Capability

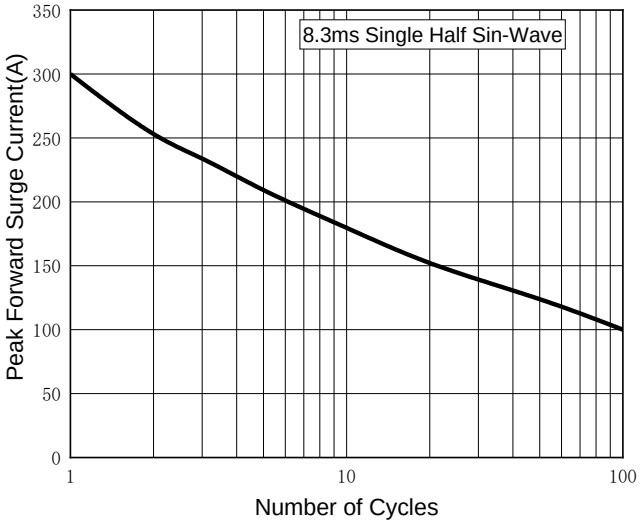


Fig.3:Typical Forward Characteristics

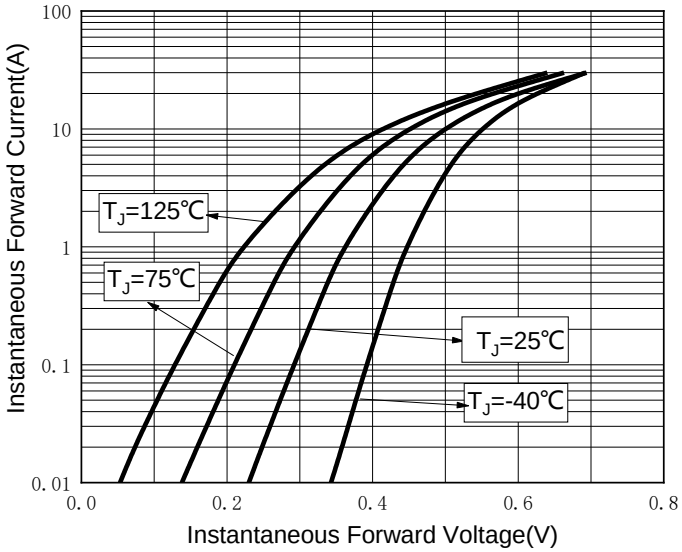
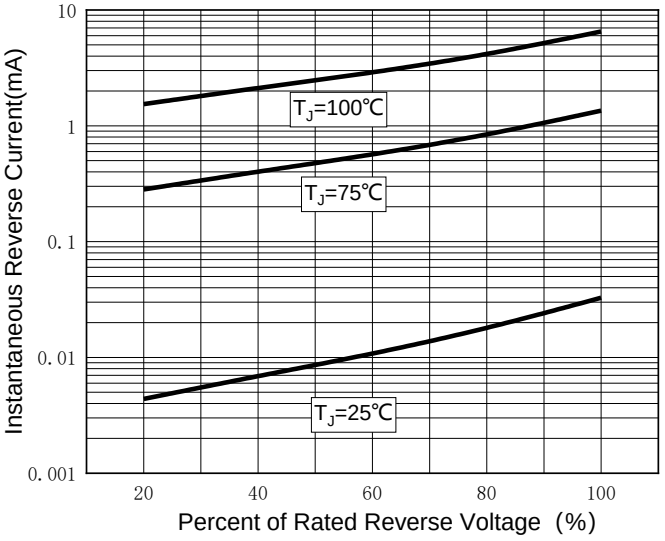
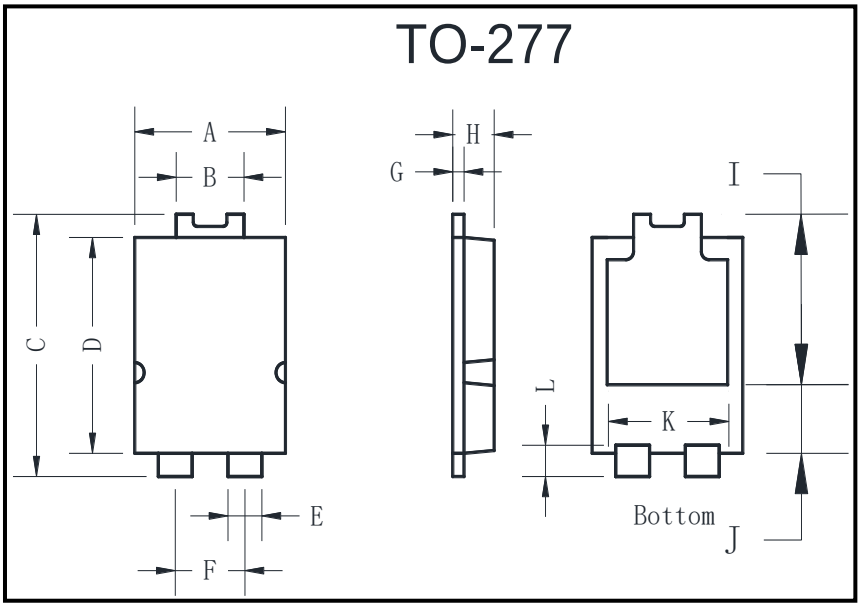


Fig.4:Typical Reverse Characteristics

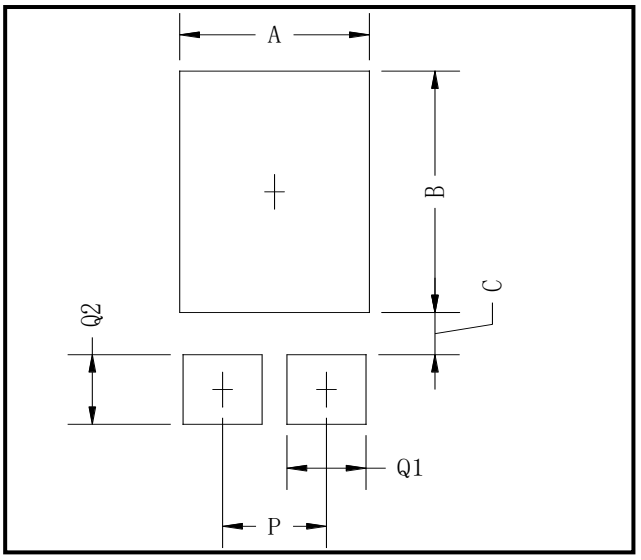


■ Outline Dimensions



TO-277		
Dim	Min**(mm)**	Max**(mm)**
A	3.9	4.1
B	1.7	1.9
C	6.4	6.6
D	5.3	5.5
E	0.8	1.0
F	1.8	1.9
G	0.35	0.45
H	1.10	1.20
I	4.1	4.5
J	1.5	1.9
K	2.9	3.4
L	0.55	0.7

■ Suggested pad layout



Dim	**Min(mm)**
A	3.36
B	4.86
C	0.85
P	1.84
Q1	1.4
Q2	1.4

Disclaimer

The information presented in this document is for reference only. Yangzhou Yangjie Electronic Technology 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 automotive electronics，are not designed for use in medical, life-saving, lifesustaining,or military,Yangjie or anyone on its behalf, assumes no responsibility or liability for any damages resulting fro m such improper use of sale.

This publication supersedes & replaces all information previously supplied. For additional information, please visit our website http:// www.21yangjie.com , or consult your nearest Yangjie's sales office for further assistance.