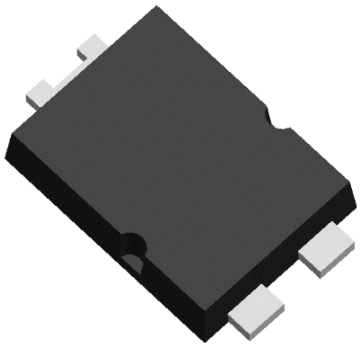
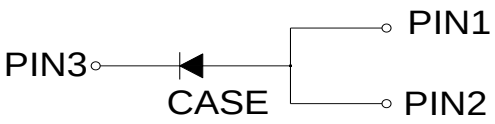
Schottky Rectifier





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	SS15U100P
Device marking code			SS15U100P
Repetitive Peak Reverse Voltage	V_{RRM}	V	100
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 T_J=25℃	I^2t	A^2s	373.5
Storage Temperature	T_{stg}	℃	-55 ~+175
Junction Temperature	T_J	℃	-55 ~+175

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

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS		Typ	Max
Instantaneous forward voltage	V_F	V	I_F=15A	T_A=25℃	0.78	0.88
			I_F=15A	T_A=125℃	0.7	0.8
Leakage Current	I_R	μA	V_R=100V	T_A=25℃	-	10
		mA		T_A=125℃	-	20

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	SS15U100P
Typical Thermal Resistance	$R_{\theta J-A}$	℃/W	75
	$R_{\theta J-A}$	℃/W	100(1)
	$R_{\theta J-C}$	℃/W	5

Note
(1) Thermal resistance from junction to ambient mounted on P.C.B. with 10mm*10mm copper pad areas

■Ordering Information (Example)

PREFERED P/N	PACKAGE CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
SS15U100P	F1	Approximate 0.106	5000	80000	13” reel

■ Characteristics (Typical)

Fig.1:Forward Current Derating Curve

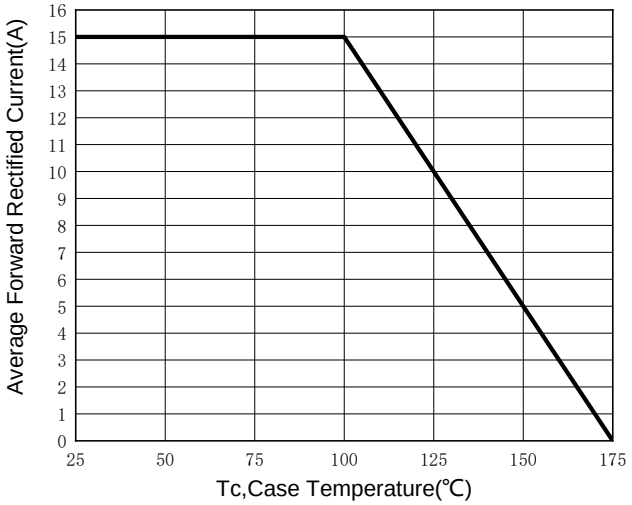


Fig.2:Forward Surge Current Capability

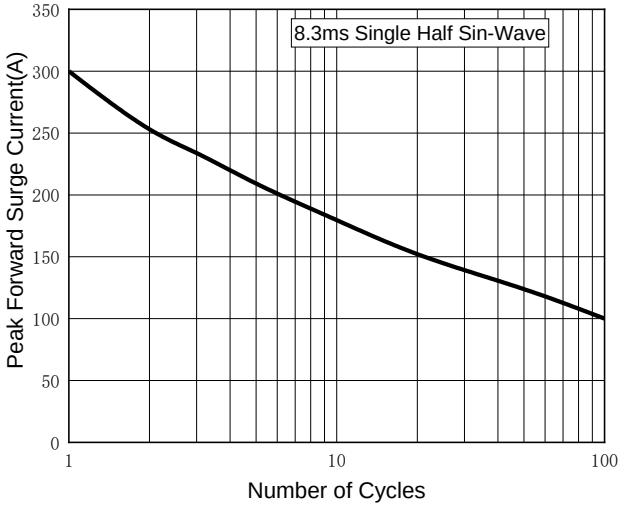


Fig.3:Typical Instantaneous Forward Characteristics

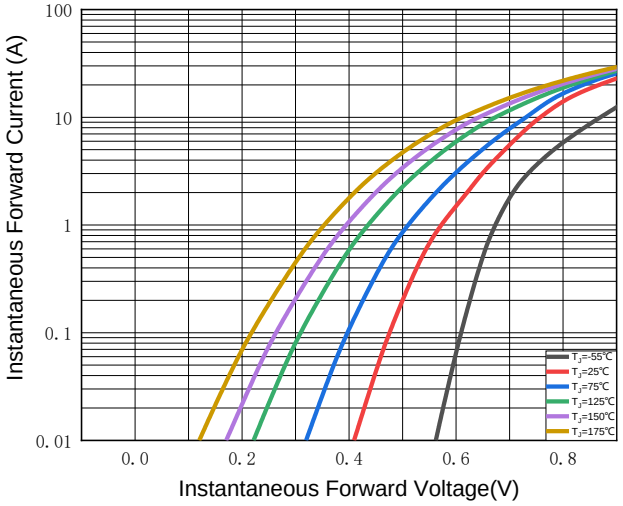
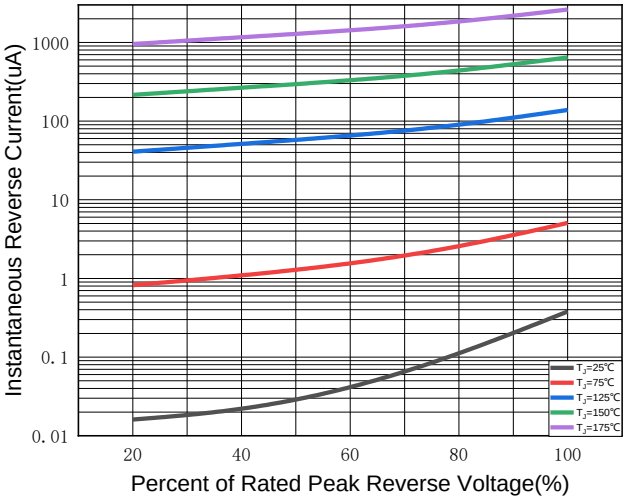
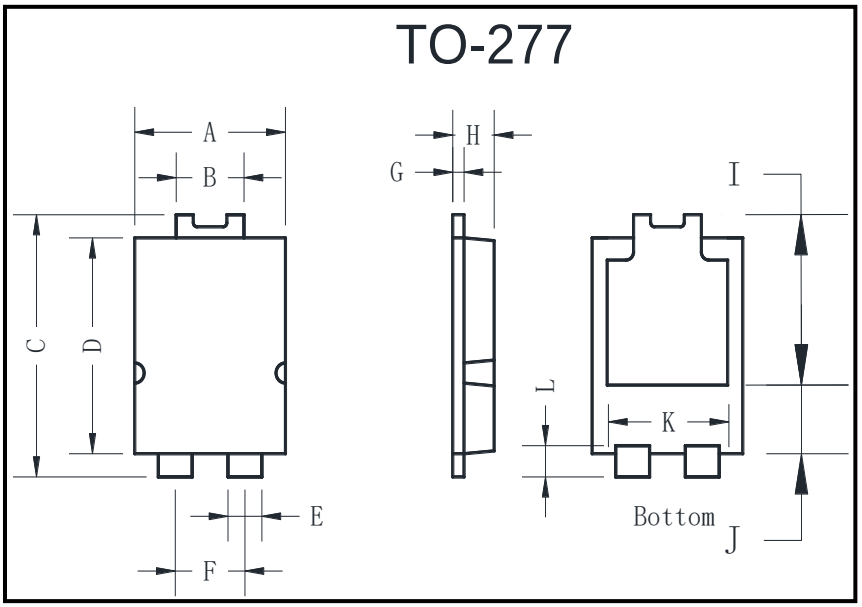


Fig.4:Typical Reverse Leakage Characteristics

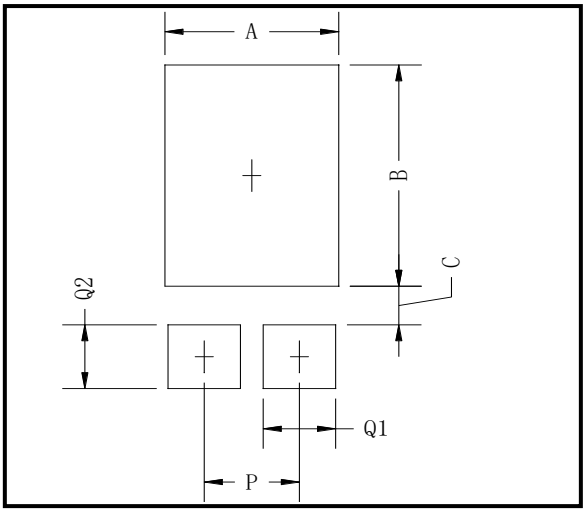


■ Outline Dimensions



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

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