

Schottky Rectifier

Features

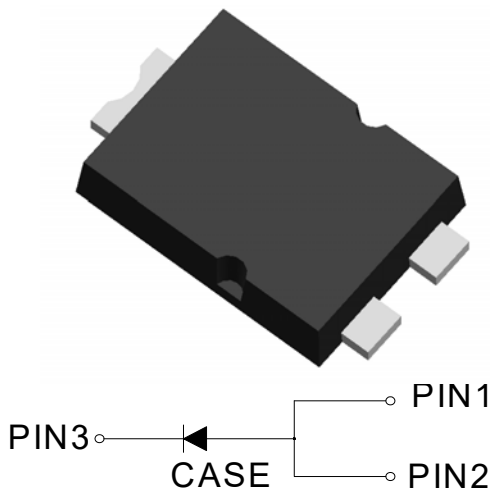
- Ideal for automated placement
- Low power losses
- High forward surge capability

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°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	SS5U100
Device marking code			SS5U100
Repetitive Peak Reverse Voltage	V _{RRM}	V	100
Average Rectified Output Current @60Hz -sine wave, R- load, T _a =25°C	I _O	A	5
Forward Surge Current (Non-repetitive) @ 60Hz Half-sine wave, 1 cycle, T _a =25°C	I _{FSM}	A	120
Current Squared Time @1ms ≤ t ≤ 8.3ms T _j =25°C	i ² t	A ² s	59
Storage Temperature	T _{stg}	°C	-55 ~+150
Junction Temperature	T _j	°C	-55 ~+150

■ Electrical Characteristics (T_a=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	Min	Typ	Max
Peak Forward Voltage	V _{FM}	V	I _{FM} =5.0A, T _j =25°C	-	0.54	0.6
			I _{FM} =3.0A, T _j =25°C	-	0.45	0.51
Reverse Breakdown Voltage	V _{BR}	V	I _R =0.5mA	100	-	-
Leakage Current	I _R	mA	V _R =100V, T _j =25°C	-	-	0.2
			V _R =100V, T _j =125°C	-	-	20



SS5U100

■ Thermal Characteristics (T_a=25°C Unless otherwise specified)

PARAMETER		SYMBOL	UNIT	SS5U100
Thermal Resistance	Junction to Case	R _{θJ-C}	°C/W	12

■ Ordering Information (Example)

PREFERRED P/N	PACKAGE CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
SS5U100	F1	Approximate 0.0816	5000	10000	80000	13" reel

■ Characteristics(Typical)

FIG.1: I_o-T_c Curve

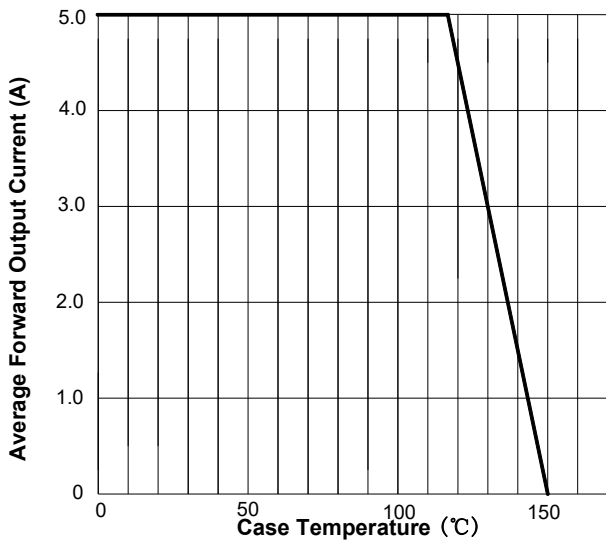


FIG.2: Forward Surge Current Capability

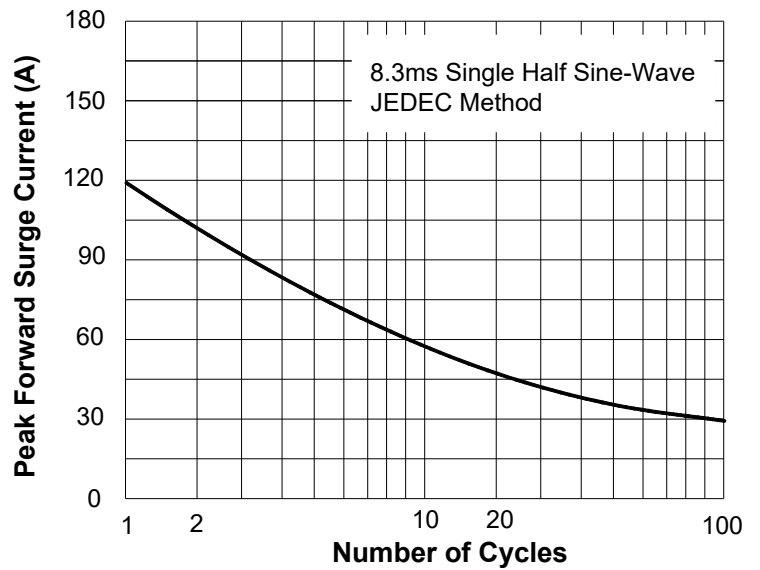


FIG.3: Forward Voltage

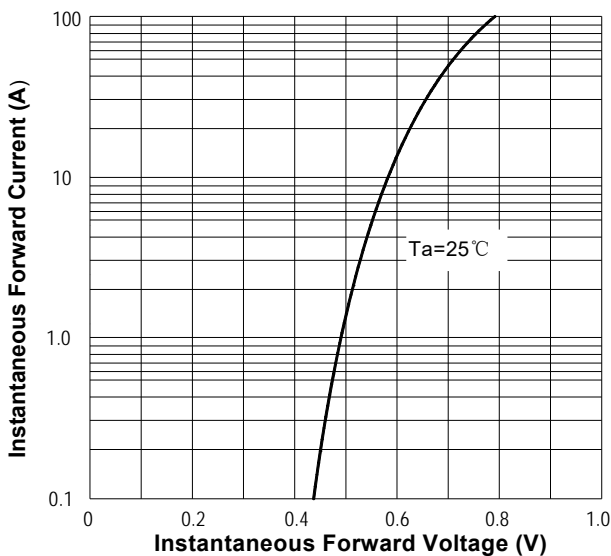
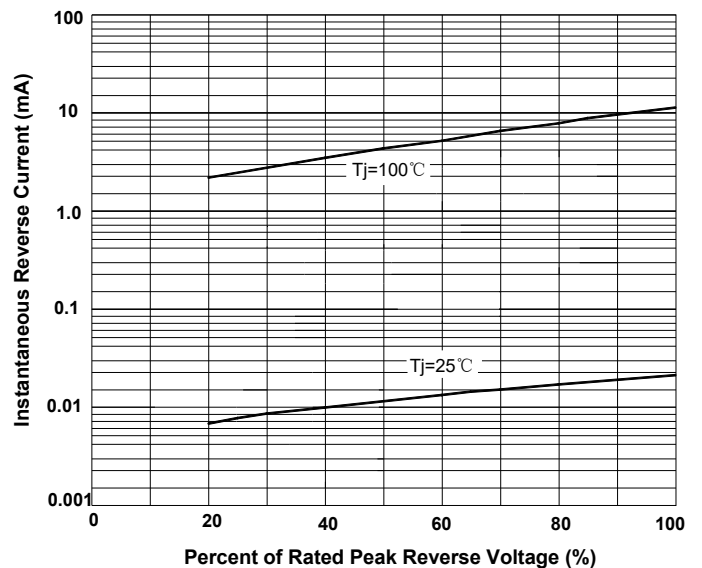
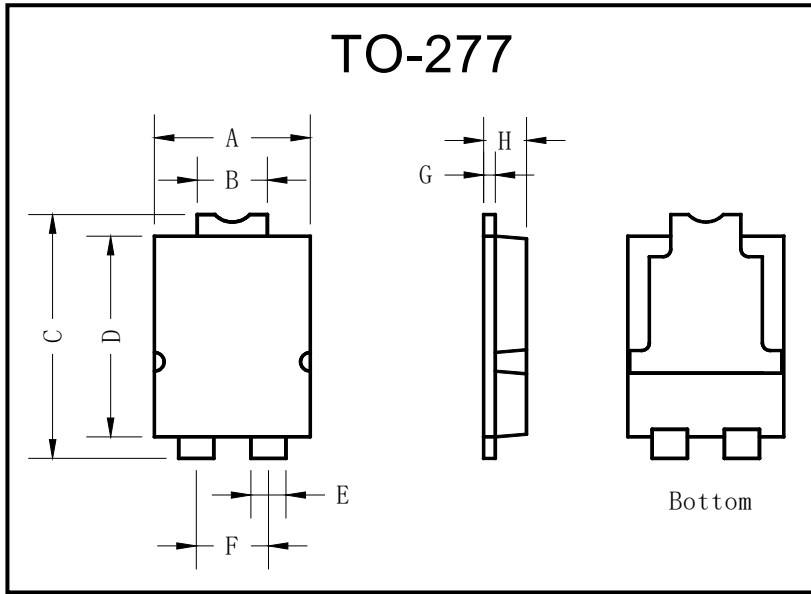


FIG.4: Typical Reverse Characteristics

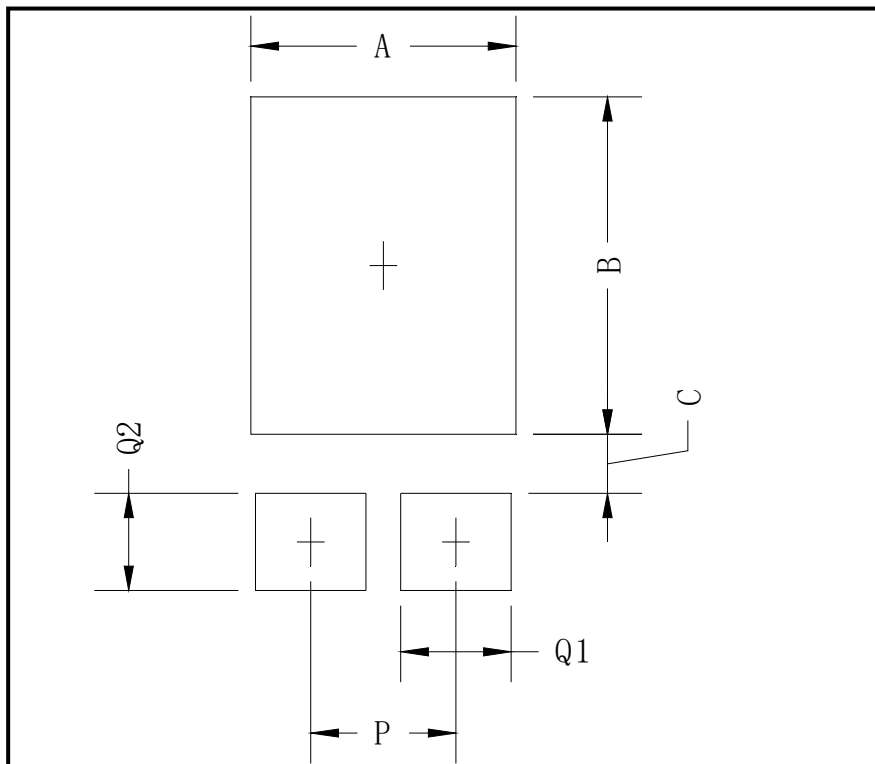


■ Outline Dimensions



TO-277		
Dim	Min(mm)	Max(mm)
A	3.9	4.1
B	1.7	1.9
C	6.4	6.6
D	5.2	5.4
E	0.8	1.0
F	1.8	1.9
G	0.25	0.35
H	1.05	1.15

■ Suggested pad layout



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



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