

Surface Mount Schottky Rectifier Reverse Voltage 100V , Forward Current 5A

Features

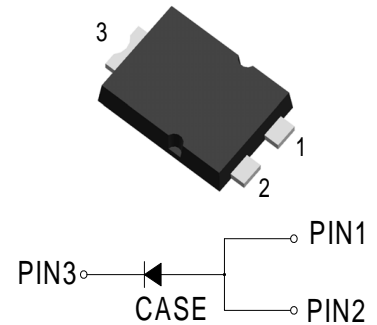
- Ideal for automated placement
- Low power losses
- High forward surge capability
- Meets MSL level1, per J-STD-020, LF maximum peak of 260 °C

Typical Applications

For use in lighting, fast switching rectification of power suppliers, inverters, converters, and freewheeling diodes for consumer, 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	SS5U100PA
Device marking code			SS5U100PA
Repetitive Peak Reverse Voltage	V _{RRM}	V	100
Average Rectified Output Current @60Hz -sine wave, R- load, T _c =118°C	I _O	A	5
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave, 1 cycle, T _a =25°C	I _{FSM}	A	200
Current Squared Time @ 1ms ≤ t ≤ 8.3ms T _j =25°C	I ² t	A ² s	166
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	-	0.71	0.8
			I _{FM} =5.0A, T _j =125°C	-	0.60	0.68
Reverse Breakdown Voltage	V _{BR}	V	I _R =0.5mA	100	-	-
Leakage Current	I _R	mA	V _R =100V, T _j =25°C	-	-	0.1
			V _R =100V, T _j =125°C	-	-	10



SS5U100PA

■ Thermal Characteristics ($T_a=25^\circ\text{C}$ Unless otherwise specified)

PARAMETER		SYMBOL	UNIT	SS5U100PA
Thermal Resistance	Junction to Case	$R_{\theta J-C}$	$^\circ\text{C/W}$	8

■ Characteristics (Typical)

FIG.1: I_o - T_c Curve

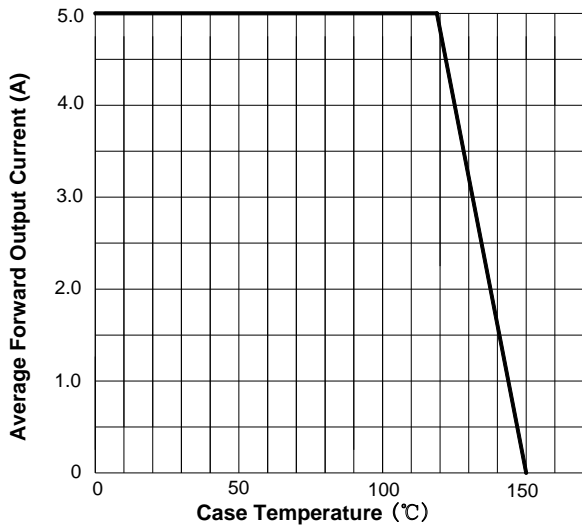


FIG.2: Forward Surge Current Capability

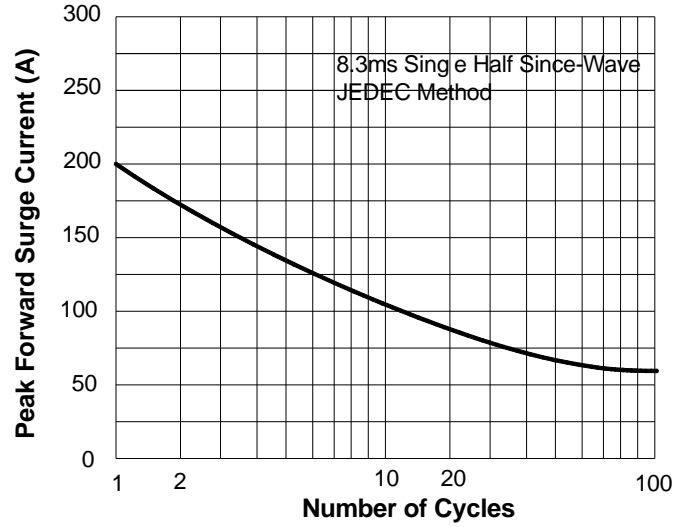


FIG.3: Forward Voltage

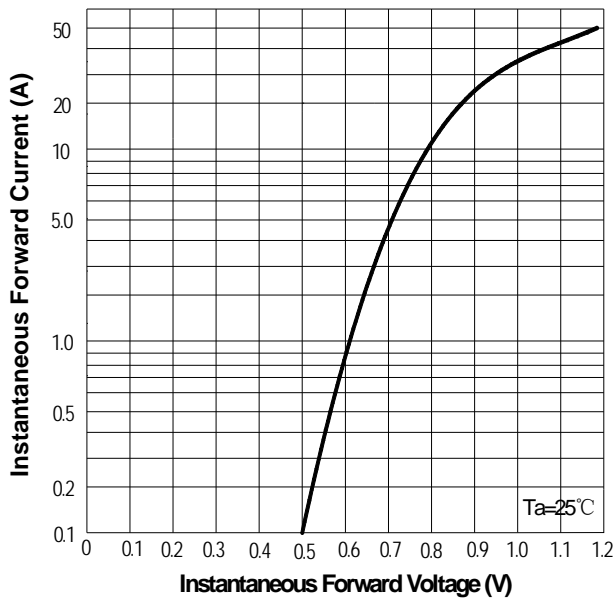
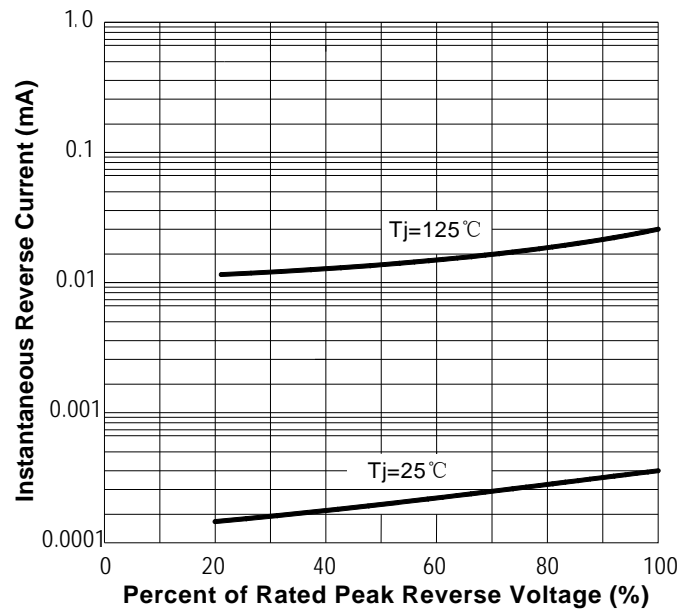
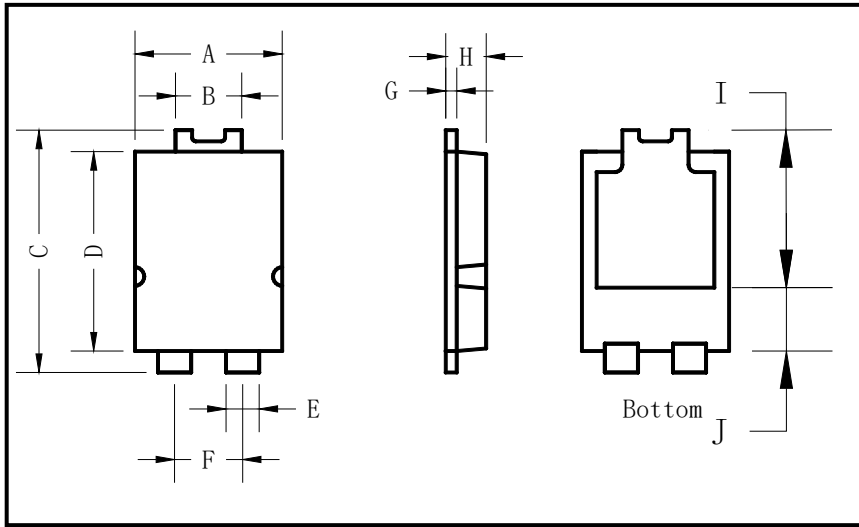


FIG.4: Typical Reverse Characteristics

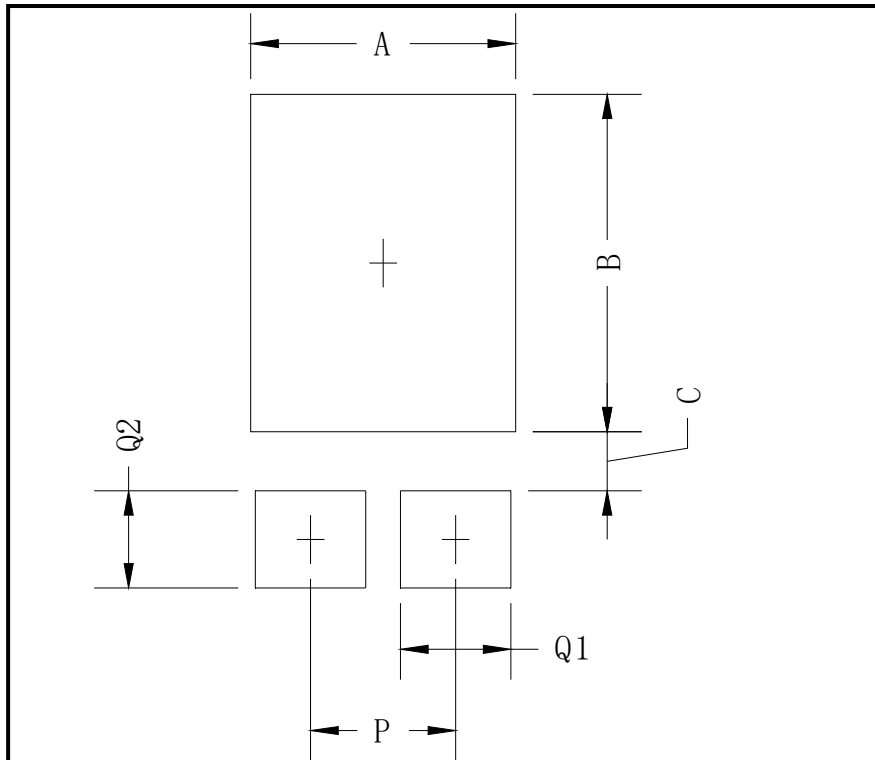


■ Outline Dimensions



TO-277		
Dim	Min(mm)	Max(mm)
A	3.9	4.1
B	1.7	1.9
C	6.4	6.6
D	5.3	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

■ Suggested pad layout



TO-277	
Dim	Min(mm)
A	3.36
B	4.86
C	0.85
P	1.84
Q1	1.4
Q2	1.4