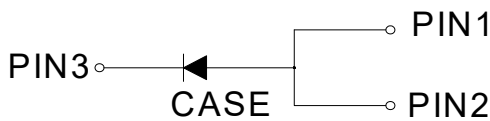
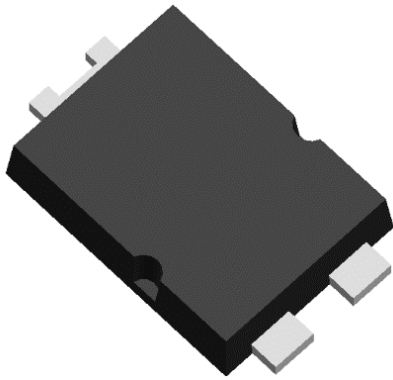


Schottky Rectifier



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

PARAMETER	SYMBOL	UNIT	SS12U100
Device marking code			SS12U100
Repetitive Peak Reverse Voltage	V_{RRM}	V	100
Average Rectified Output Current @60Hz -sine wave, R- load, $T_c=100^\circ\text{C}$	I_o	A	12
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave, 1 cycle, $T_a=25^\circ\text{C}$	I_{FSM}	A	250
Current Squared Time @ $1\text{ms} \leq t \leq 8.3\text{ms}$ $T_j=25^\circ\text{C}$	I^2t	A^2s	260
Storage Temperature	T_{stg}	$^\circ\text{C}$	-55 ~+150
Junction Temperature	T_j	$^\circ\text{C}$	-55 ~+150

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

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	Min	Typ	Max
Peak Forward Voltage	V_{FM}	V	$I_{FM}=12.0\text{A}, T_j=25^\circ\text{C}$	-	0.65	0.71
Reverse Breakdown Voltage	V_{BR}	V	$I_R=0.5\text{mA}$	100	-	-
Leakage Current	I_R	mA	$V_R=100\text{V}, T_j=25^\circ\text{C}$	-	-	0.1
			$V_R=100\text{V}, T_j=100^\circ\text{C}$	-	-	10

Note1: Pulse test: 300 μs pulse width, 1% duty cycle

Note2: Pulse test: pulse width 40mS



SS12U100

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

PARAMETER		SYMBOL	UNIT	SS12U100
Thermal Resistance	Junction to Case	$R_{\theta\text{-JC}}$	$^\circ\text{C/W}$	8

■ Ordering Information (Example)

PREFERRED P/N	PACKAGE CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
SS12U100	F1	Approximate 0.0821	5000	10000	80000	13" reel

■ Characteristics (Typical)

FIG.1: I_o - T_c Curve

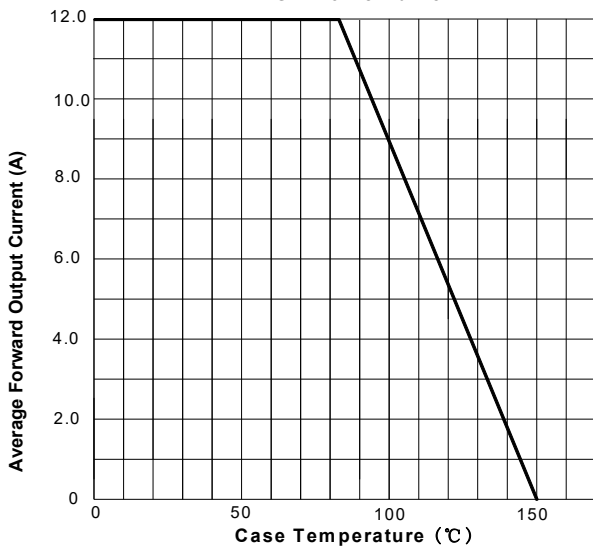


FIG.2: Forward Surge Current Capability

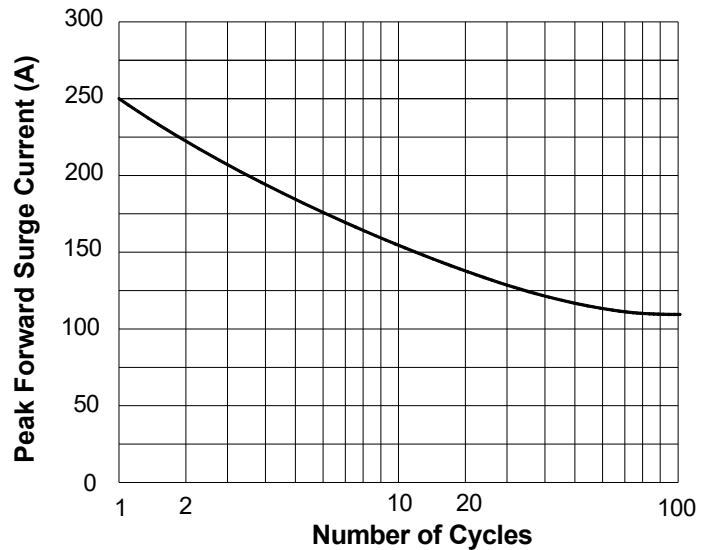


FIG.3: Forward Voltage

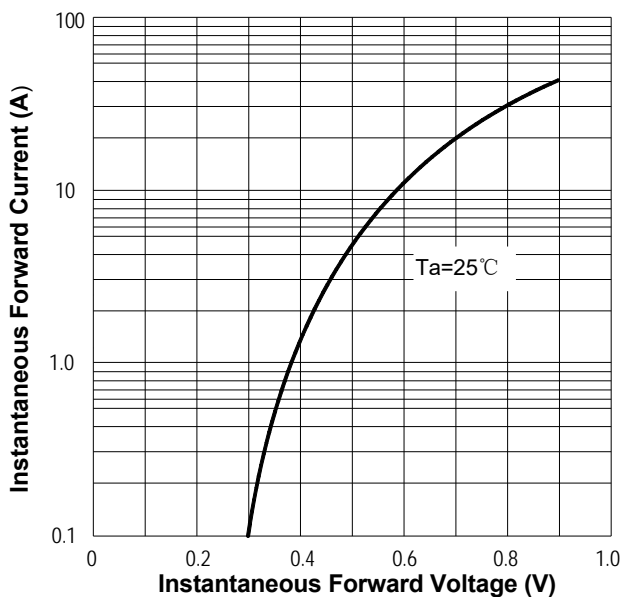
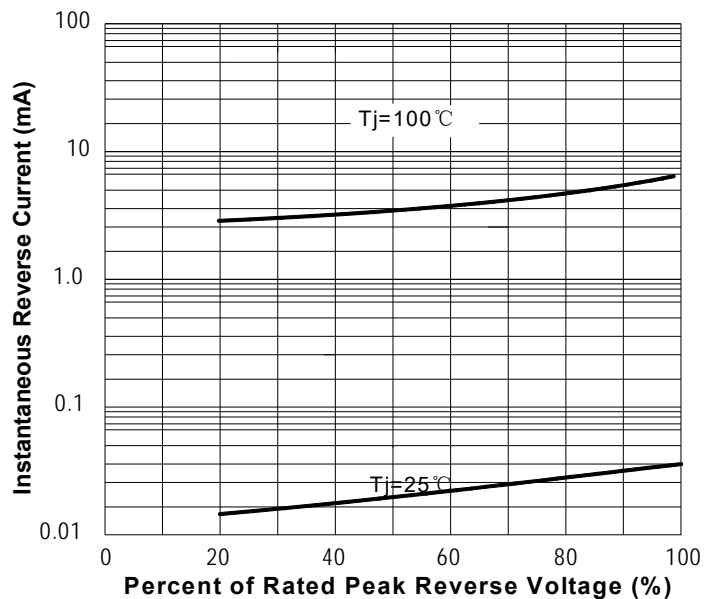


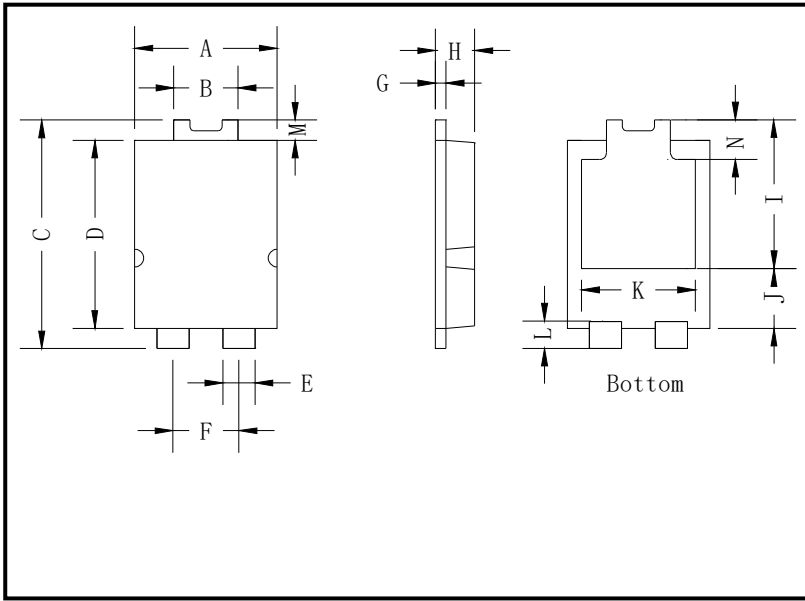
FIG.4: Typical Reverse Characteristics





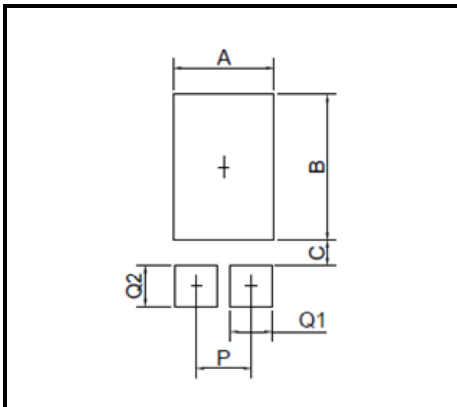
SS12U100

■ Outline Dimensions



TO-277		
Dim	Min(mm)	Max(mm)
A	3.90	4.10
B	1.70	1.90
C	6.40	6.60
D	5.30	5.50
E	0.80	1.00
F	1.85 ref.	
G	0.35	0.45
H	1.10	1.20
I	4.10	4.50
J	1.50	1.90
K	2.90	3.40
L	0.55	0.75
M	0.50 ref.	
N	1.15 ref.	

■ Suggested pad layout



DIM	MIN.(mm)
A	3.36
B	4.86
C	0.85
P	1.84
Q1	1.40
Q2	1.40



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