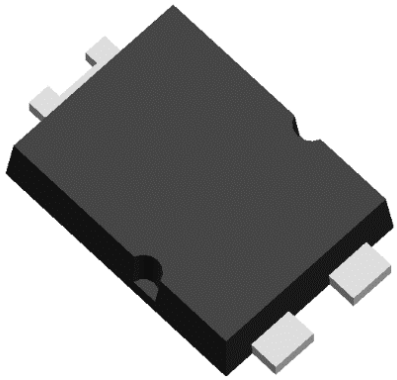
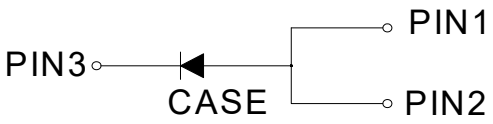
Schottky Rectifier





Features

- Ideal for automated placement
- Low power losses
- 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 (Ta=25℃ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	SS20U100
Device marking code			SS20U100
Repetitive Peak Reverse Voltage	V_{RRM}	V	100
Average Rectified Output Current @60Hz -sine wave, R- load, Tc(FIG.1)	I_O	A	20
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	Tj	℃	-55 ~+150

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

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	Min	Typ	Max
Peak Forward Voltage	V_{FM}	V	I_{FM} =20.0A,Tj=25℃	-	0.64	0.70
			I_{FM} =20.0A,Tj=125℃	-	0.60	0.65
Reverse Breakdown Voltage	V_{BR}	V	I_R=0.5mA	100	-	-
Leakage Current	I_R	mA	V_R=100V，Tj=25℃	-	-	0.1
			V_R=100V，Tj=125℃	-	-	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	SS20U100
Thermal Resistance	Junction to Case	$R_{\theta J-C}$	℃/W	8

■Ordering Information (Example)

PREFERED P/N	PACKAGE CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
SS20U100	F1	Approximate 0.0828	5000	10000	80000	13” reel

■ Characteristics(Typical)

FIG.1: Io-Tc Curve

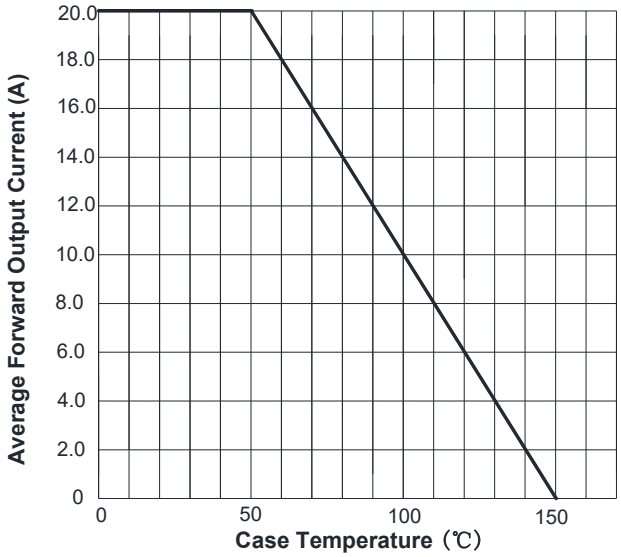


FIG.2: Forward Surge Current Capability

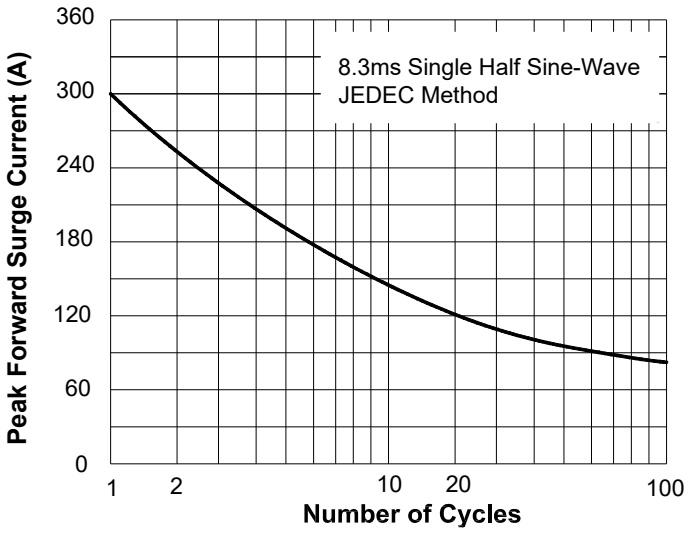


FIG.3: Forward Voltage

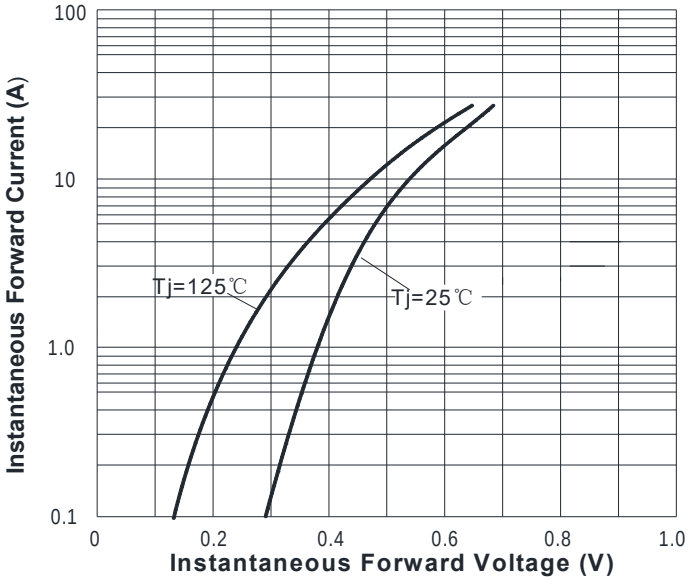
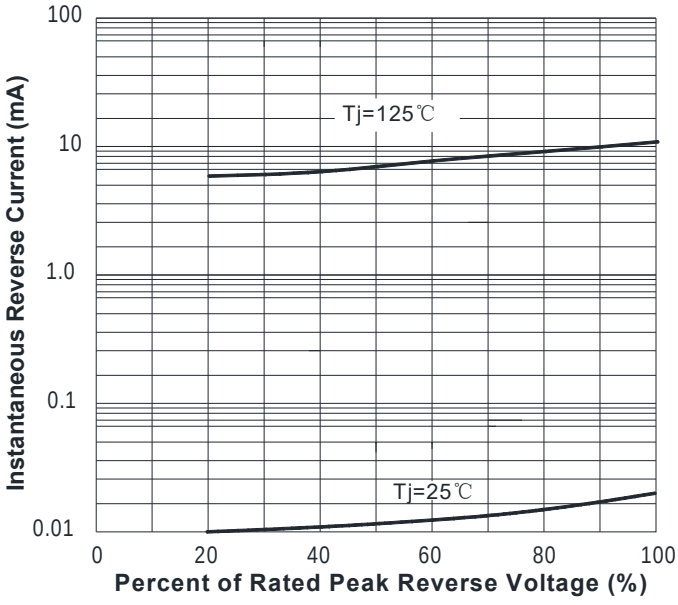
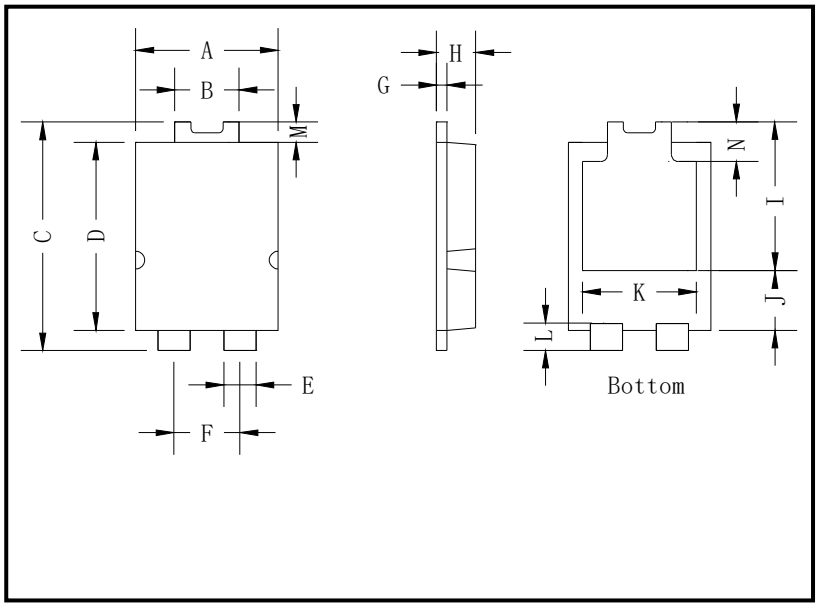


FIG.4: Typical Reverse Characteristics

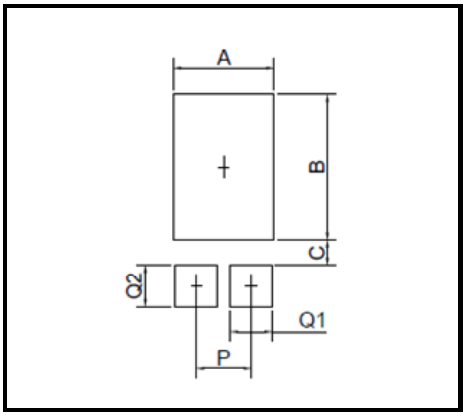


■ Outline Dimensions



TO-277		
Dim	Min**(mm)**	Max**(mm)**
A	3.90	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

Notice

All products, product specifications and data are subject to change without notice to improve reliability, function or design or otherwise. Information contained herein is intended to provide a product description only. No license, express or implied, to any intellectual property rights is granted by this document. Except as provided in STARSEA's terms and conditions of sale for such products, STARSEA assumes no liability whatsoever, and disclaims any express or implied warranty, relating to sale and/or use of STARSEA products including liability or warranties relating to fitness for a particular purpose, merchantability, or infringement of any patent, copyright, or other intellectual property right.