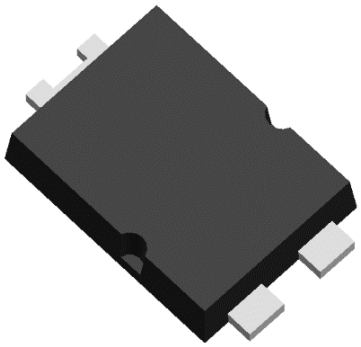
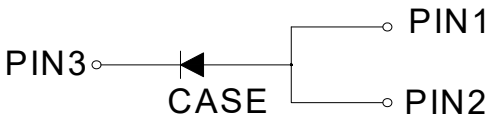
Schottky Rectifier





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
- Part no. with suffix “Q” means AEC-Q101 qualified

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℃ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	SS10U200PQ
Device marking code			SS10U200P
Repetitive Peak Reverse Voltage	V_{RRM}	V	200
Average Rectified Output Current @60Hz -sine wave	I_O	A	10
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave,1 cycle, Ta=25℃	I_{FSM}	A	200
Current Squared Time @1ms≤t≤8.3ms T_J=25℃	I^2t	A^2s	166
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 =10A, T_J=25℃	0.85	0.9
			I_F =10A, T_J=125℃	0.70	0.85
Reverse current	I_R	uA	V_R=200V，T_J=25℃	-	1
		mA	V_R=200V，T_J=125℃	-	5
Typical junction capacitance	C_J	pF	V_R=4V,f=1 MHz	160	-

■Dynamic Characteristics

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	Min	Typ	Max
Reverse Recovery Time	T_{RR}	ns	I_F=6A,di/dt=-200A/us, V_{RM}=200V, T_J=25℃	-	53	-
Peak recovery current	I_{RRM}	A		-	6.3	-
Reverse recovery charge	Qrr	nC		-	163	-

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

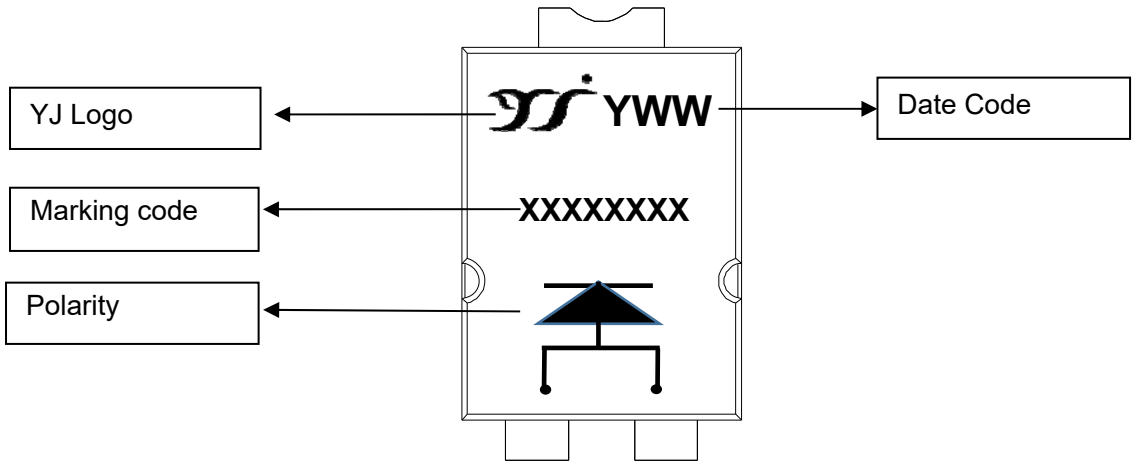
PARAMETER		SYMBOL	UNIT	SS10U200PQ
Thermal Resistance	Junction to Ambient	$R_{\theta J-A}$	℃/W	97(1)
	Junction to Case	$R_{\theta J-C}$	℃/W	8(2)

Note
(1) Thermal resistance from junction to Ambient mounted on 25.4mm*25.4mm P.C.B. with 10mm*10mm copper pad areas
(2) Thermal resistance from junction to Case mounted on P.C.B. with 35mm*25mm copper pad areas

■Ordering Information (Example)

PREFERED P/N	PACKAGE CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
SS10U200PQ	F1	Approximate 0.106	5000	80000	13” reel

■ Marking Information



Note:
1. All marking is at middle of the product body
2. All marking is in laser printing
3. XXXXXX is marking code, like SS10U200P
4. Body color: Black
5. YWW is date code, “Y” is year. “WW” is week.

For instance: The 15th week of 2019, date code is 915

■ **Characteristics** (Typical)

Fig.1:Forward Current Derating Curve

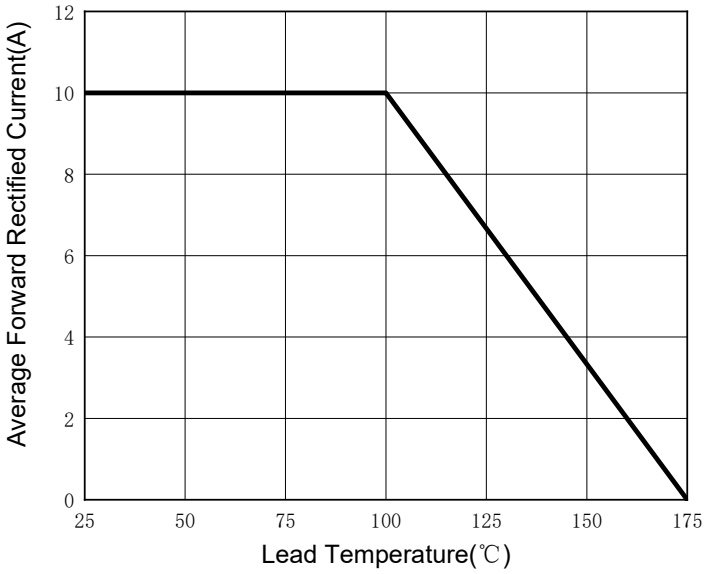


Fig.2:Forward Surge Current Capability

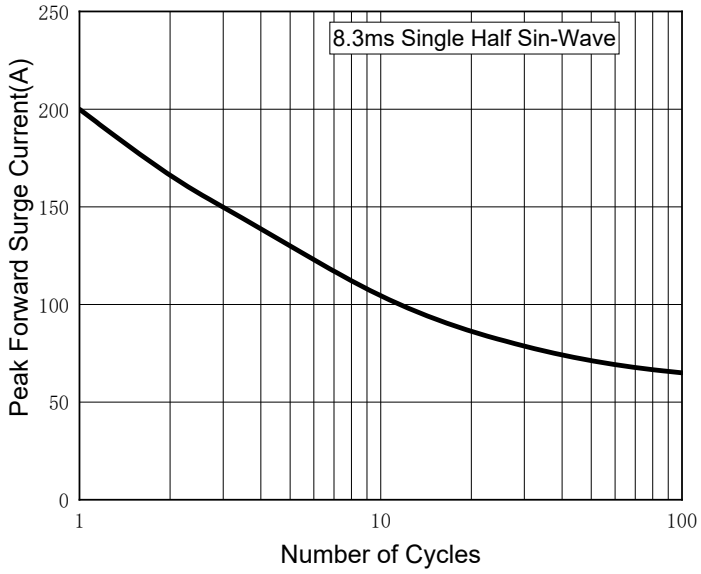


Fig.3:Typical Instantaneous Forward Characteristics

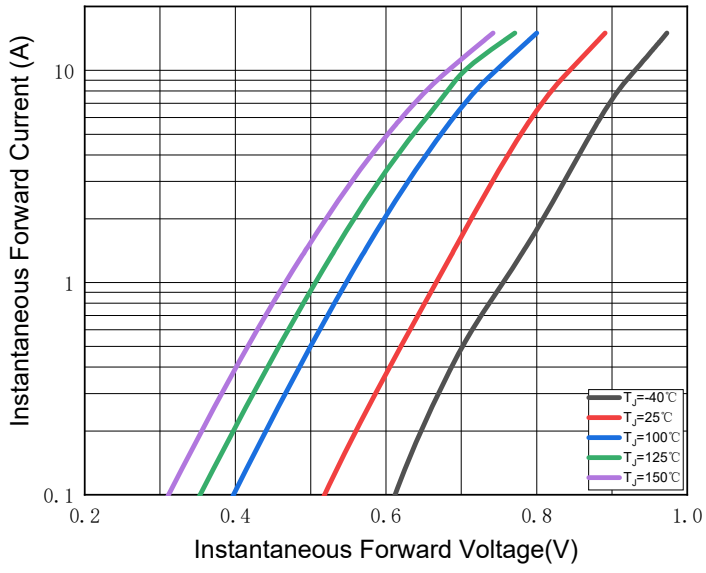
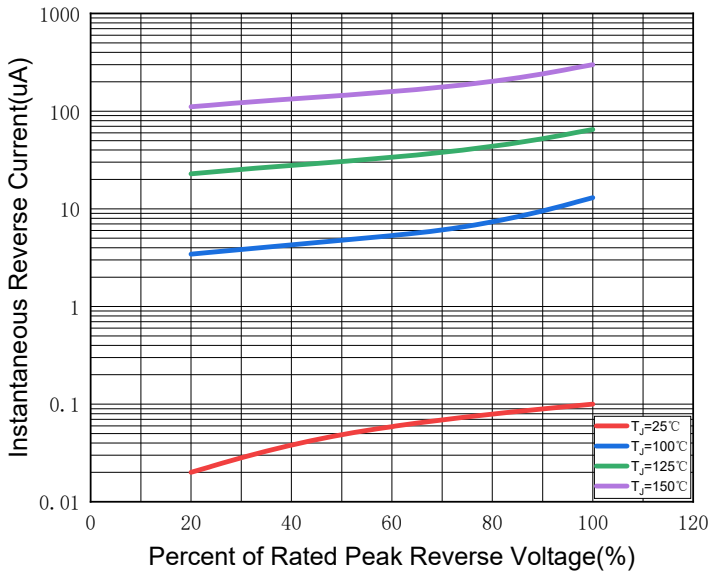
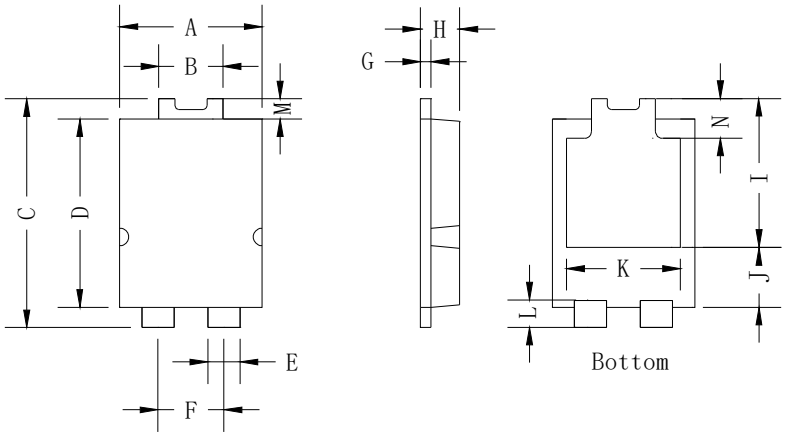


Fig.4:Typical Reverse Leakage Characteristics

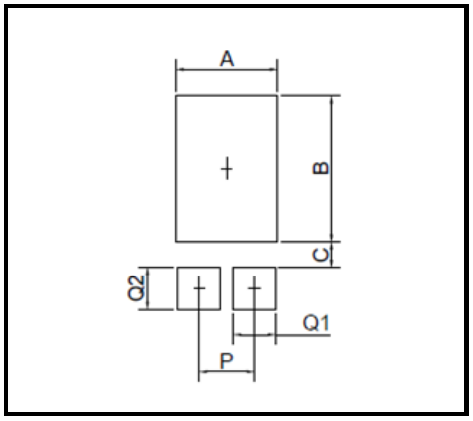


■ Outline Dimensions



DIM	mm	
	MIN.	MAX.
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

Disclaimer

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