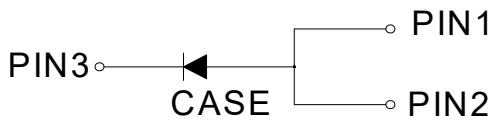
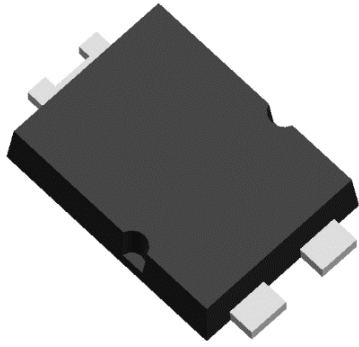


Schottky Rectifier



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 ($T_a=25^\circ\text{C}$ 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, $T_a=25^\circ\text{C}$	I_{FSM}	A	200
Current Squared Time @ $1\text{ms} \leq t \leq 8.3\text{ms}$ $T_J=25^\circ\text{C}$	I^2t	A^2s	166
Storage Temperature	T_{stg}	$^\circ\text{C}$	-55 ~ +175
Junction Temperature	T_J	$^\circ\text{C}$	-55 ~ +175

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

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	Typ	Max
Instantaneous forward voltage	V_F	V	$I_F=10\text{A}, T_J=25^\circ\text{C}$	0.85	0.9
			$I_F=10\text{A}, T_J=125^\circ\text{C}$	0.70	0.85
Reverse current	I_R	μA	$V_R=200\text{V}, T_J=25^\circ\text{C}$	-	1
		mA	$V_R=200\text{V}, T_J=125^\circ\text{C}$	-	5
Typical junction capacitance	C_J	pF	$V_R=4\text{V}, f=1\text{ MHz}$	160	-



SS10U200PQ

Dynamic Characteristics

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

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

PARAMETER		SYMBOL	UNIT	SS10U200PQ
Thermal Resistance	Junction to Ambient	$R_{\theta JA}$	$^{\circ}C/W$	97 ⁽¹⁾
	Junction to Case	$R_{\theta JC}$	$^{\circ}C/W$	8 ⁽²⁾

Note

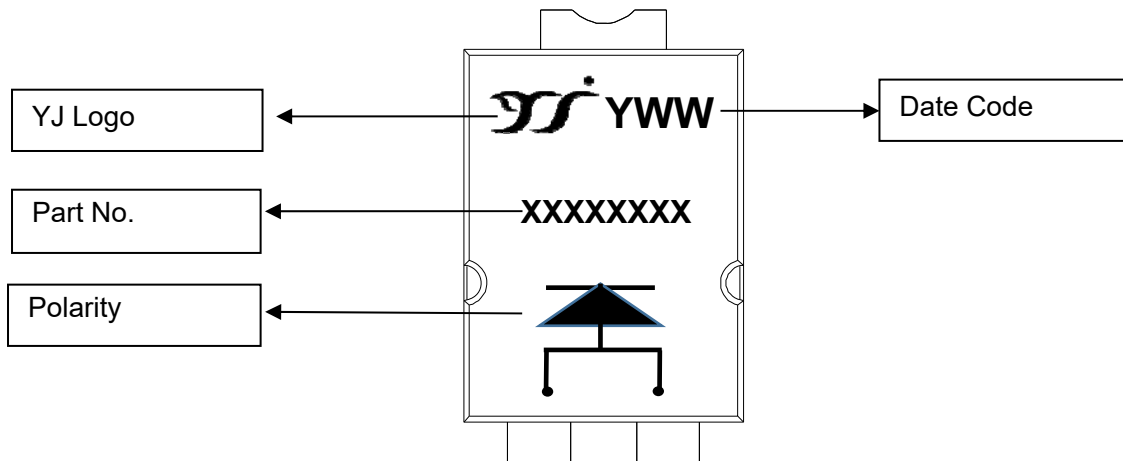
(1) Thermal resistance from junction to Ambient mounted on 25.4mm*25.4mm P.C.B. with 10mm*10mm copper pad areas

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

Ordering Information (Example)

PREFERRED 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:

- All marking is at middle of the product body
- All marking is in laser printing
- XXXXXXXX is part no., like SS10U200P.
- Body color: Black
- 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

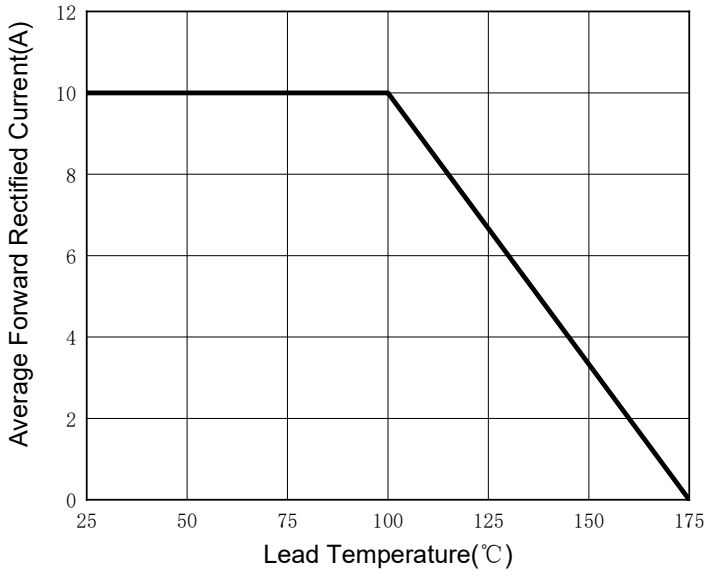


Fig.2:Forward Surge Current Capability

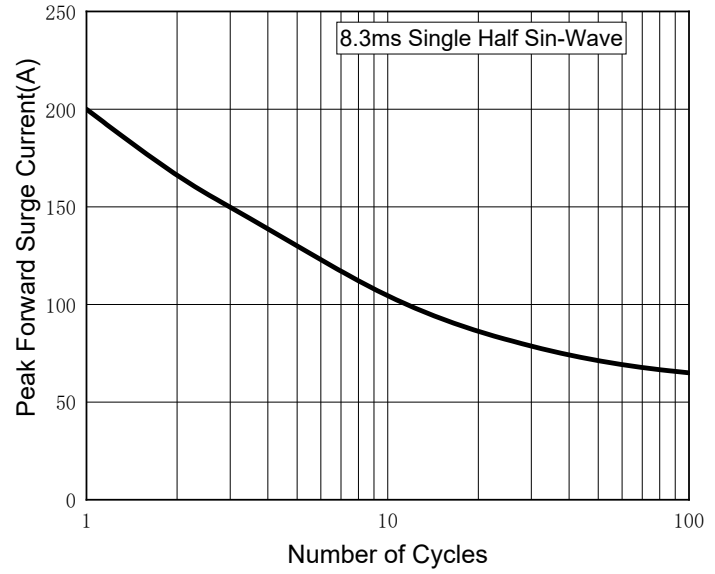


Fig.3:Typical Instantaneous Forward Characteristics

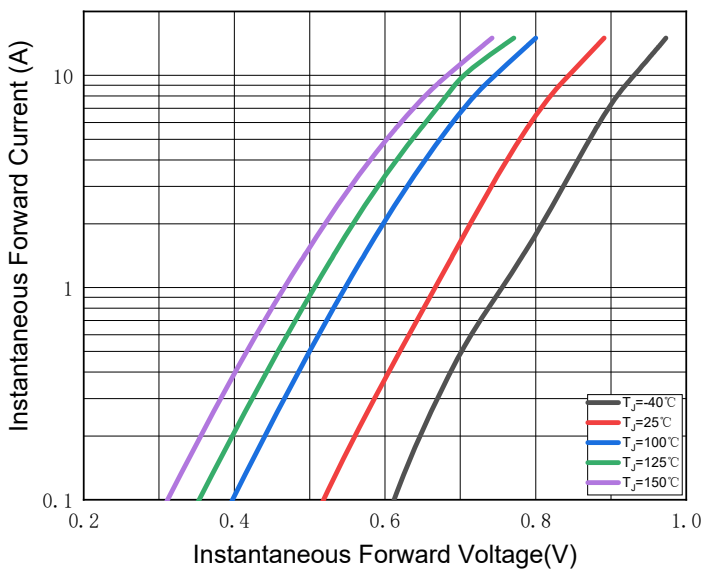
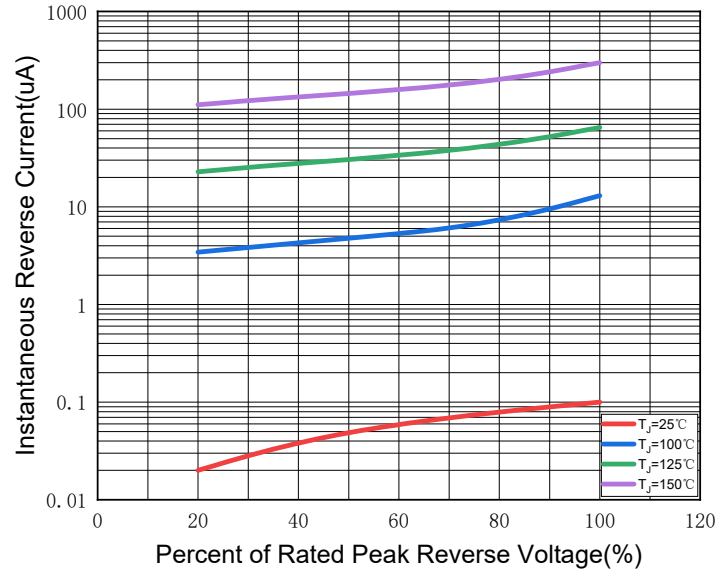


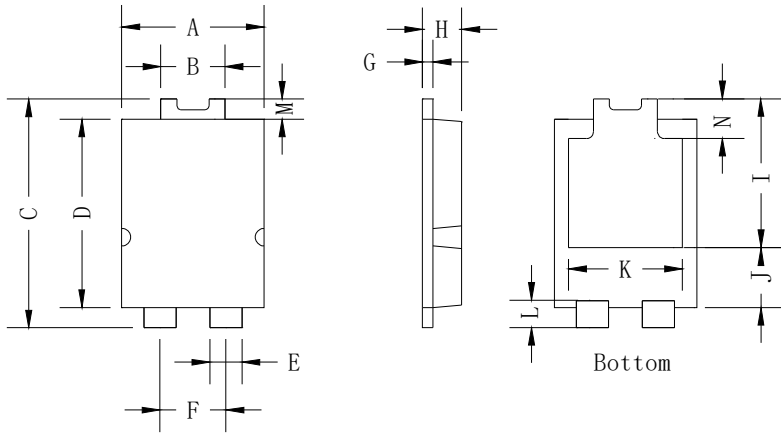
Fig.4:Typical Reverse Leakage Characteristics





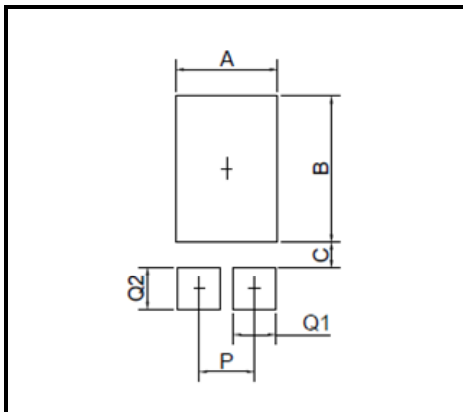
SS10U200PQ

■ 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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