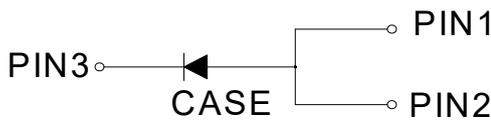
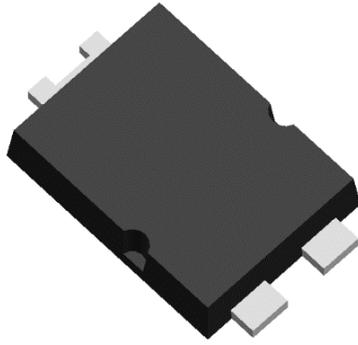


## Schottky Rectifier



### 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, DC/AC inverters, DC/DC converters, and freewheeling diodes for polarity protection application 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 (T<sub>a</sub>=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	SS15U100PQ
Device marking code			SS15U100P
Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	V	100
Average Rectified Output Current @60Hz -sine wave	I <sub>O</sub>	A	15
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave, 1 cycle, T <sub>a</sub> =25°C	I <sub>FSM</sub>	A	300
Current Squared Time @1ms≤t≤8.3ms T <sub>J</sub> =25°C	I <sup>2</sup> t	A <sup>2</sup> s	373.5
Non-repetitive avalanche energy at I <sub>AS</sub> =2.0 A, T <sub>J</sub> = 25°C	E <sub>AS</sub>	mJ	20
Storage Temperature	T <sub>stg</sub>	°C	-55 ~+175
Junction Temperature	T <sub>J</sub>	°C	-55 ~+175

### ■Electrical Characteristics (T<sub>a</sub>=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS		Typ	Max
Instantaneous forward voltage	V <sub>F</sub>	V	I <sub>F</sub> =15A	T <sub>A</sub> =25°C	0.78	0.88
			I <sub>F</sub> =15A	T <sub>A</sub> =125°C	0.7	0.8
Typical junction capacitance	C <sub>J</sub>	pF	V <sub>R</sub> =4V, f=1 MHz		420	-
Leakage Current	I <sub>R</sub>	μA	V <sub>R</sub> =100V	T <sub>A</sub> =25°C	-	10
		mA		T <sub>A</sub> =125°C	-	20



# SS15U100PQ

## ■ Thermal Characteristics (T<sub>a</sub>=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	SS15U100PQ
Typical Thermal Resistance	R <sub>θJ-A</sub>	°C/W	75
	R <sub>θJ-A</sub>	°C/W	100 <sup>(1)</sup>
	R <sub>θJ-C</sub>	°C/W	5

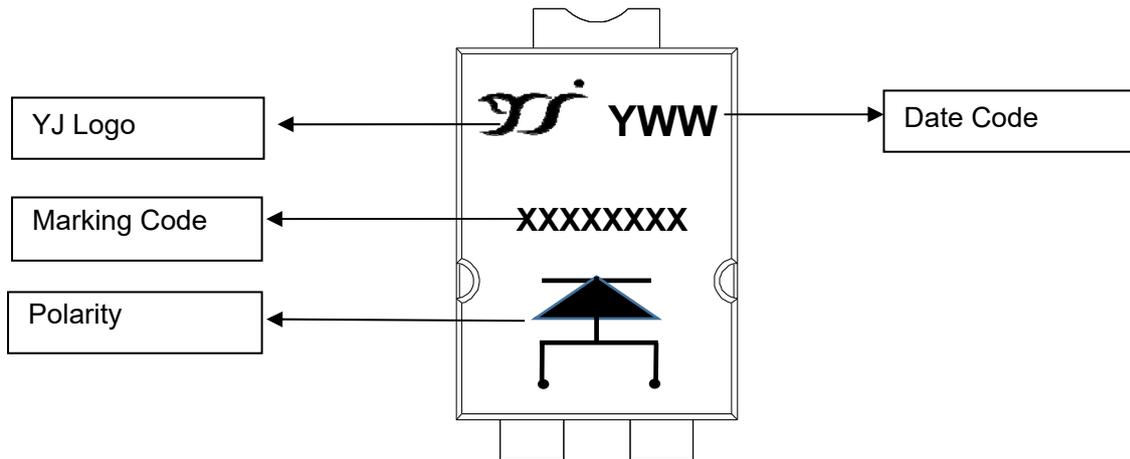
Note

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

## ■ Ordering Information (Example)

PREFERED P/N	PACKAGE CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
SS15U100PQ	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 SS15U100P
4. Body color: Black
5. YWW is date code, "Y" is year. "WW" is week.  
For instance: The 15<sup>th</sup> week of 2019, date code is 915



# SS15U100PQ

## ■ Characteristics (Typical)

Fig.1:Forward Current Derating Curve

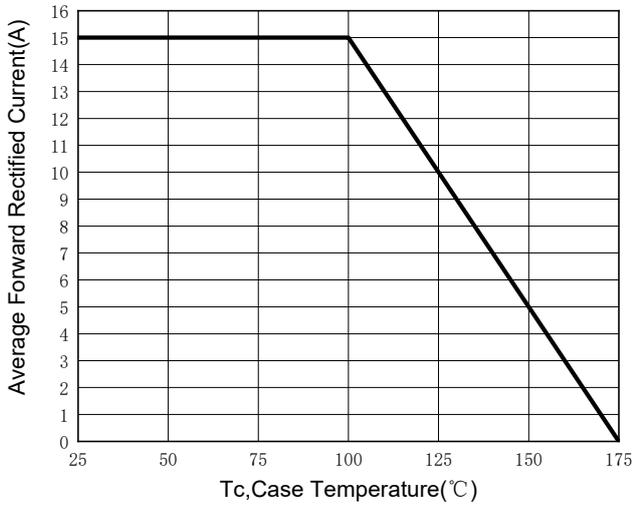


Fig.2:Forward Surge Current Capability

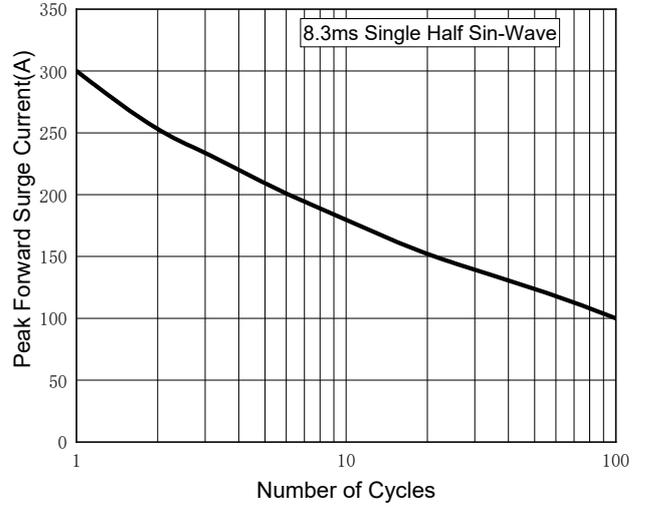


Fig.3:Typical Instantaneous Forward Characteristics

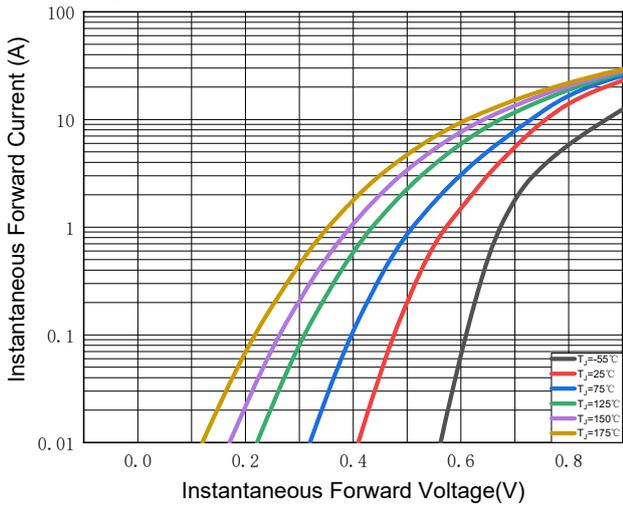


Fig.4:Typical Reverse Leakage Characteristics

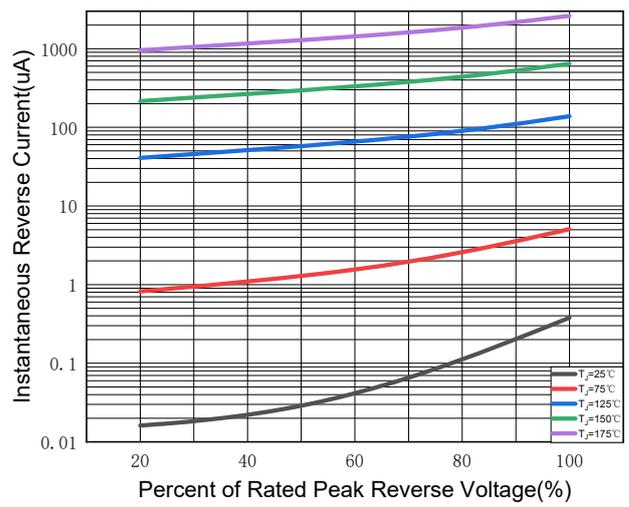
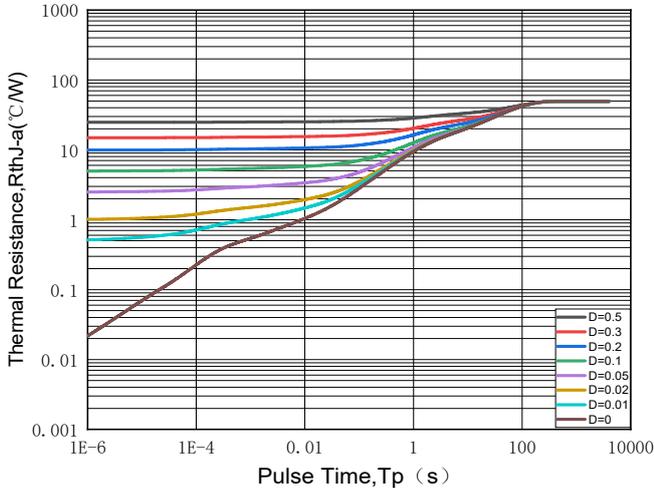


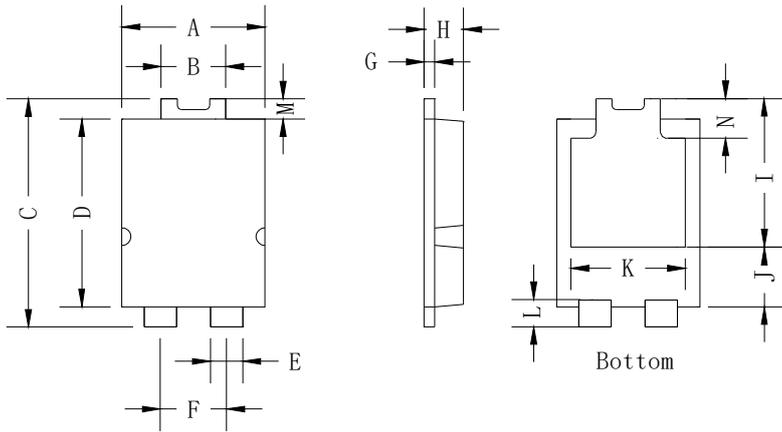
Fig.5 Typical Transient Thermal Impedance





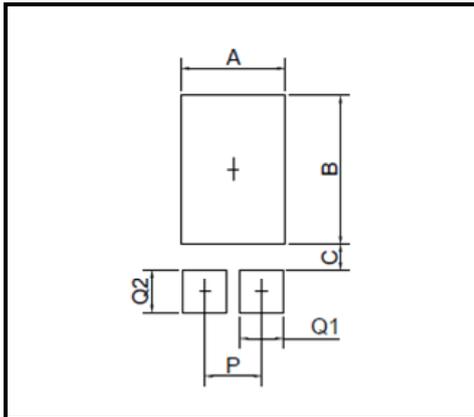
# SS15U100PQ

## ■ 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



## SS15U100PQ

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