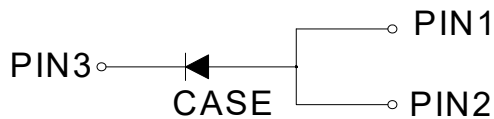
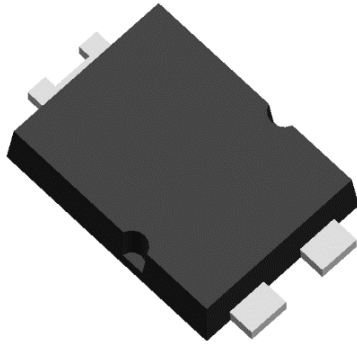


Schottky Rectifier



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°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	SS15U45PQ
Device marking code			SS15U45P
Repetitive Peak Reverse Voltage	V _{RRM}	V	45
Average Rectified Output Current @60Hz -sine wave, R- load, T _c =107°C	I _O	A	15
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave, 1 cycle, T _a =25°C	I _{FSM}	A	300
Current Squared Time @1ms≤t≤8.3ms T _J =25°C	I ² t	A ² s	375
Storage Temperature	T _{stg}	°C	-55 ~+150
Junction Temperature	T _J	°C	-55 ~+150

■Electrical Characteristics (T_a=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	Min	Typ	Max
Peak Forward Voltage	V _{FM}	V	I _{FM} =5A, T _J =25°C	-	0.43	0.55
			I _{FM} =15A, T _J =25°C	-	0.54	0.8
Reverse Breakdown Voltage	V _{BR}	V	I _R =0.5mA	45	-	-
Leakage Current	I _R	mA	V _R =45V, T _J =25°C	-	-	0.1
			V _R =45V, T _J =100°C	-	-	50
Typical junction capacitance	C _J	pF	V _R =4V, f=1 MHz	-	700	-



SS15U45PQ

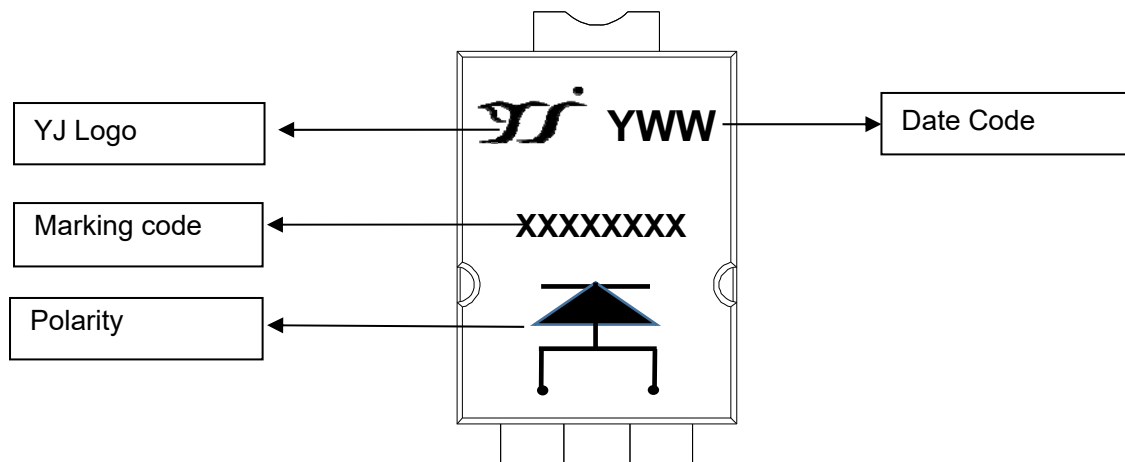
■ Thermal Characteristics ($T_a=25^{\circ}\text{C}$ Unless otherwise specified)

PARAMETER		SYMBOL	UNIT	SS15U45PQ
Thermal Resistance	Junction to Case	$R_{\theta J-A}$	$^{\circ}\text{C}/\text{W}$	90
		$R_{\theta J-C}$	$^{\circ}\text{C}/\text{W}$	8

■ Ordering Information (Example)

PREFERED P/N	PACKAGE CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
SS15U45PQ	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 SS15U45P.
 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: I_O - T_C Curve

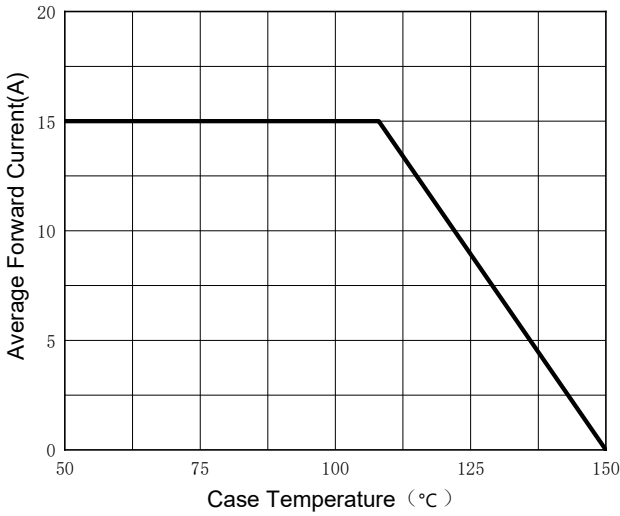


Fig.2: Forward Surge Current Capability

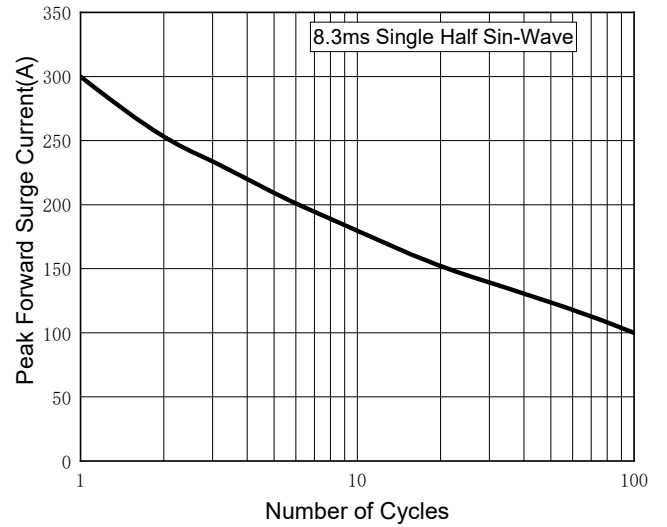


Fig.3: Typical Forward Characteristics

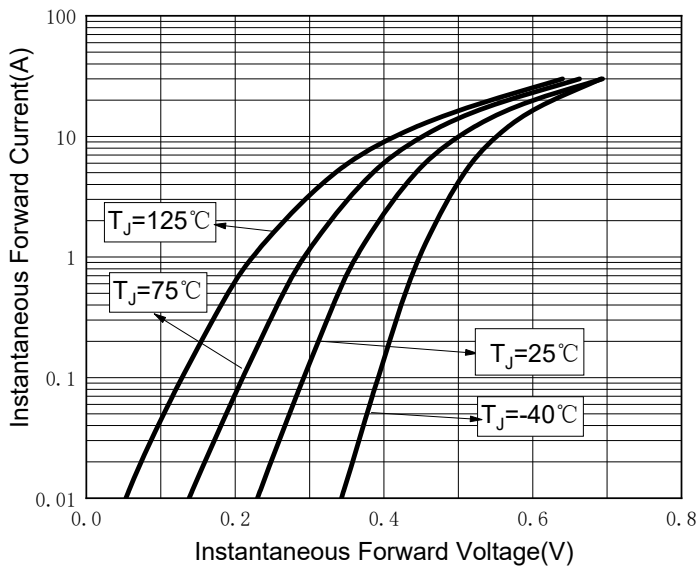


Fig.4: Typical Reverse Characteristics

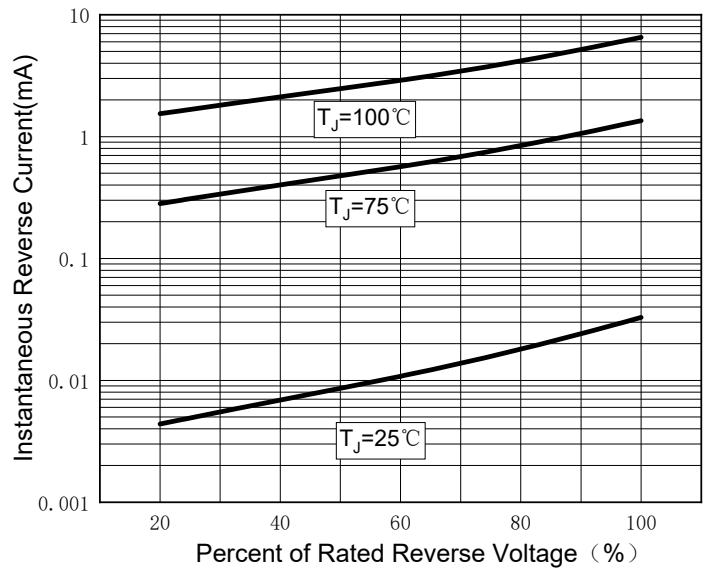
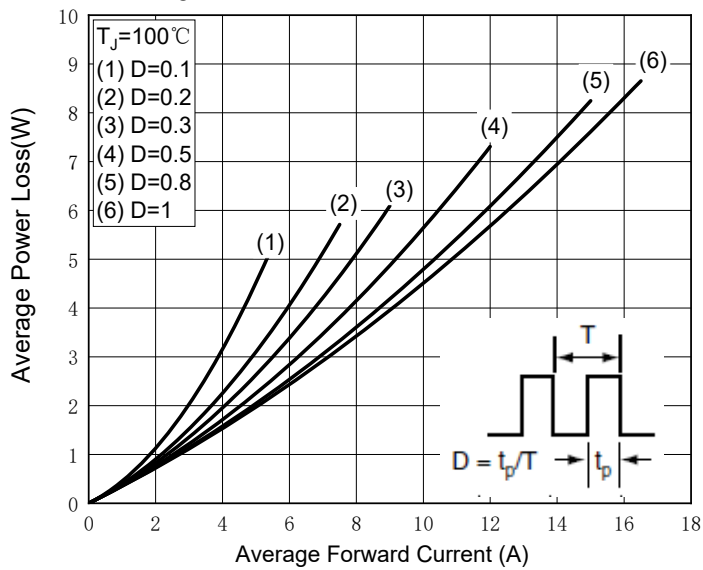


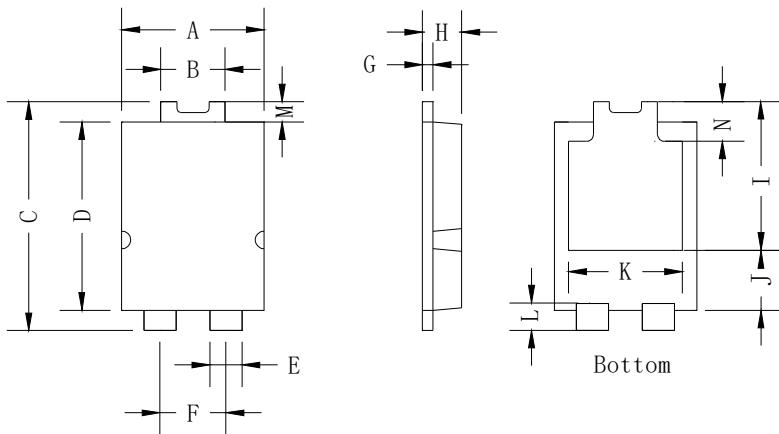
Fig.5: Forward Power Loss Characteristics





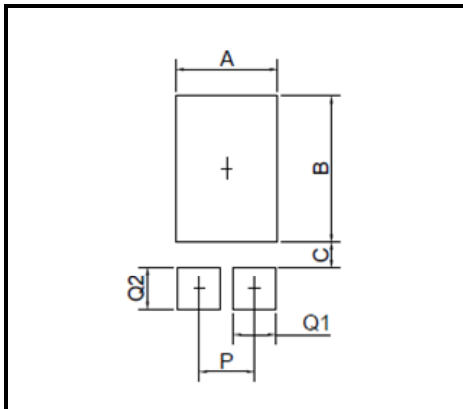
SS15U45PQ

■ 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	0.65	0.85
M	0.55 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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