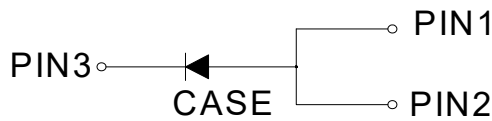
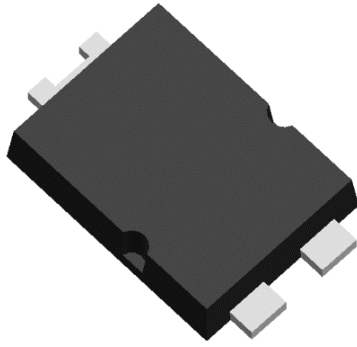


Schottky Rectifier



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	SS5U45PQ
Device marking code			SS5U45P
Repetitive Peak Reverse Voltage	V_{RRM}	V	45
Maximum average forward rectified current at T_c (Fig.1)	I_O	A	5
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave, 1 cycle, $T_a=25^\circ\text{C}$	I_{FSM}	A	160
Current Squared Time @ $1\text{ms} \leq t \leq 8.3\text{ms}$ $T_j=25^\circ\text{C}$	I^2t	A^2s	106
Storage Temperature	T_{stg}	$^\circ\text{C}$	-55 ~+150
Junction Temperature	T_j	$^\circ\text{C}$	-55 ~+150

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

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	Min	Typ	Max
Peak Forward Voltage	V_{FM}	V	$I_{FM}=5\text{A}, T_j=25^\circ\text{C}$	-	0.51	0.6
			$I_{FM}=5\text{A}, T_j=125^\circ\text{C}$	-	0.44	0.54
Leakage Current	I_R	mA	$V_R=45\text{V}, T_j=25^\circ\text{C}$	-	0.011	0.15
			$V_R=45\text{V}, T_j=125^\circ\text{C}$	-	7.82	15
Typical junction capacitance	C_J	pF	$V_R=4\text{V}, f=1\text{MHz}$	-	275	-



SS5U45PQ

■ Thermal Characteristics

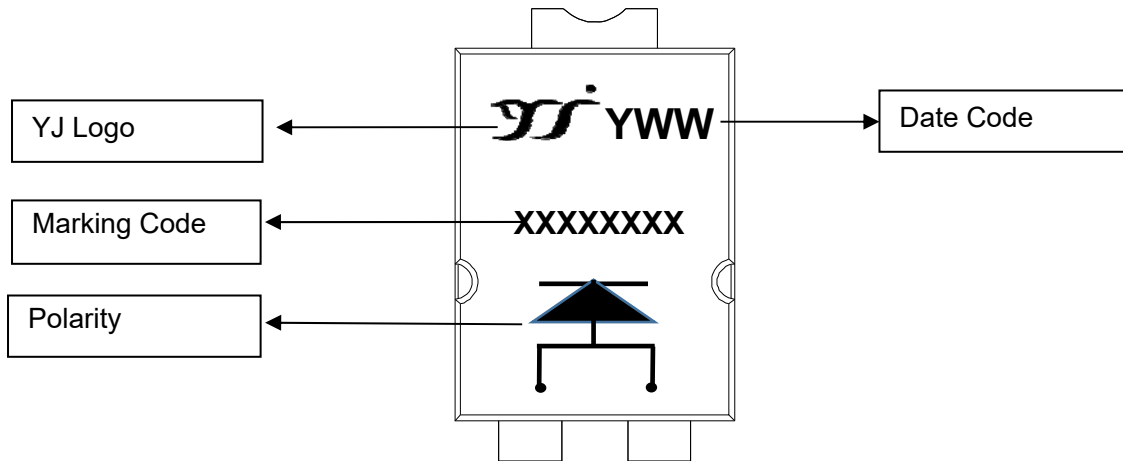
PARAMETER	SYMBOL	UNIT	SS5U45PQ
Typical Thermal Resistance	R _{θJA}	°C/W	121
	R _{θJC}		14
	R _{θJL}		22

Note:
 (1) Thermal resistance from junction to ambient and from junction to case and from junction to lead mounted on P.C.B with 10mm*10mm copper pad areas.

■ Ordering Information (Example)

PREFERRED P/N	PACKAGE CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
SS5U45PQ	F1	Approximate 0.106	5000	80000	13" reel

■ Marking Information



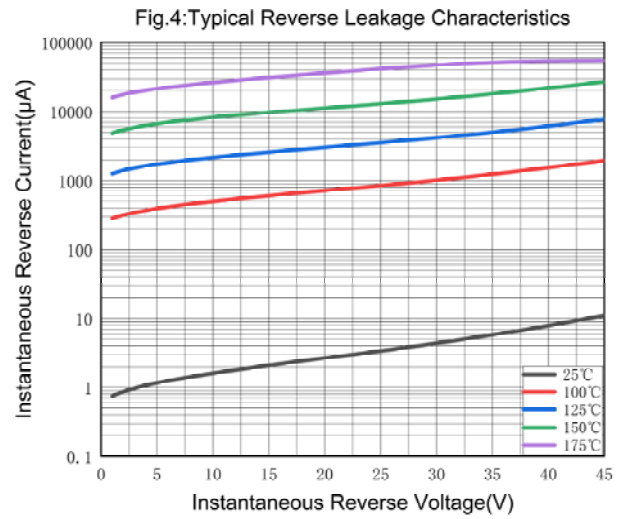
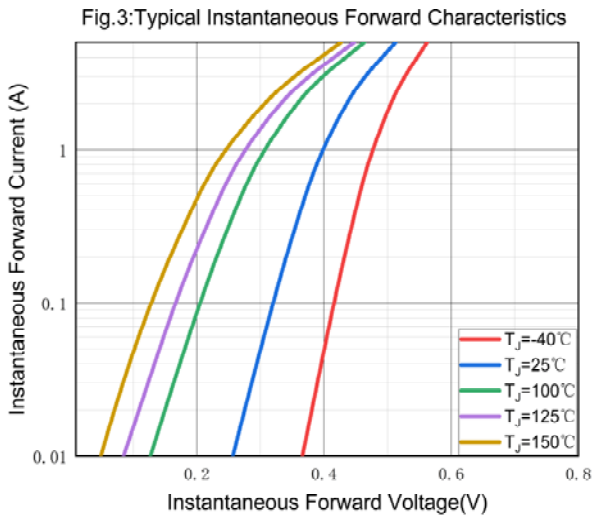
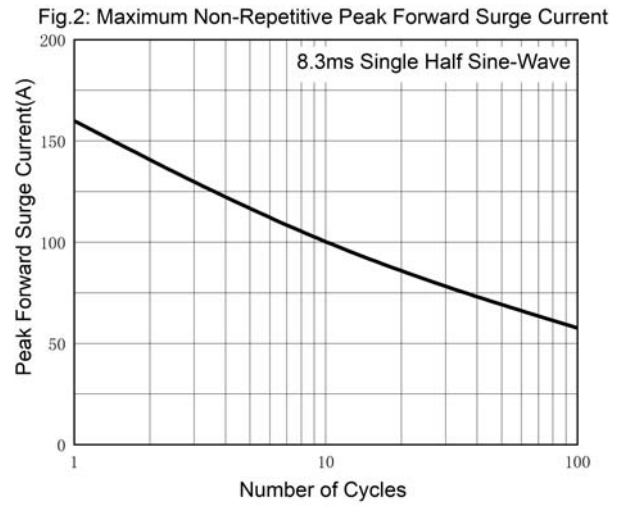
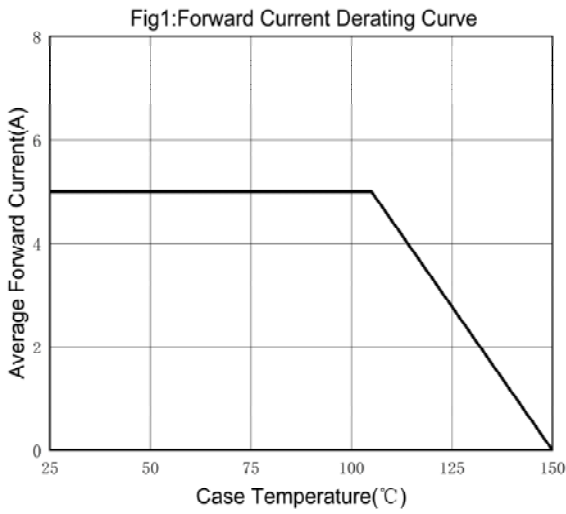
Note:

1. All marking is at middle of the product body
2. All marking is in laser printing
3. XXXXXX is marking code, like SS5U45P
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



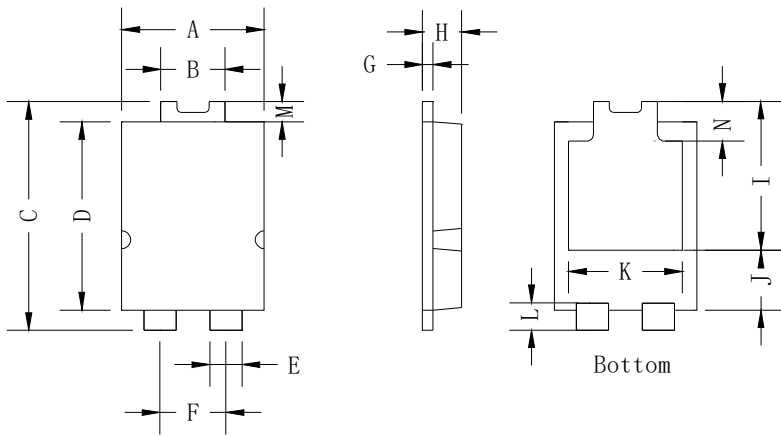
■ Characteristics (Typical)





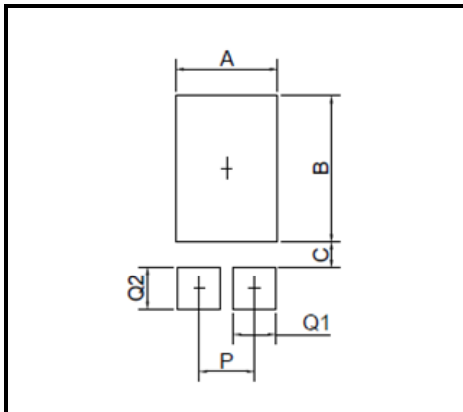
SS5U45PQ

■ 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



SS5U45PQ

Disclaimer

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