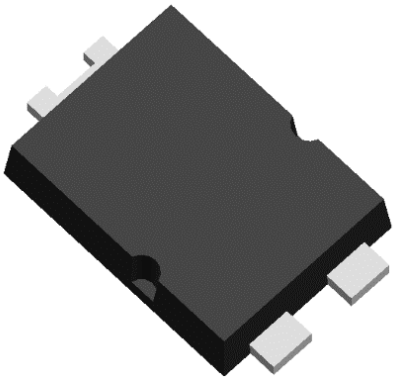
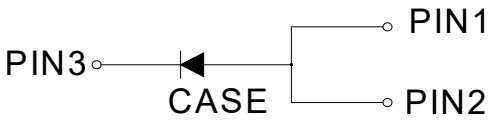
Schottky Rectifier





Features

- Ideal for automated placement
- Low forward voltage drop, low power losses
- High forward surge capability
- Part no. with suffix “Q” means AEC-Q101 qualified
- Meets MSL level1, per J-STD-020, LF maximum peak of 260 °C

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	SS5U50PAQ	SS5U60PAQ
Device marking code			SS5U50PA	SS5U60PA
Repetitive Peak Reverse Voltage	V_{RRM}	V	50	60
Average Rectified Output Current @60Hz -sine wave（FIG.1）	I_O	A	5	
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	Tstg	℃	-55 ~+150	
Junction Temperature	Tj	℃	-55 ~+150	

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

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS		Min	Typ	Max
Peak Forward Voltage	V_{FM}	V	I_{FM} =5.0A,Tj=25℃		-	-	0.64
			I_{FM} =5.0A,Tj=125℃		-	-	0.55
Reverse Breakdown Voltage	V_{BR}	V	I_R=0.5mA	SS5U50PAQ	50	-	-
			I_R=0.5mA	SS5U60PAQ	60	-	-
Leakage Current	I_R	mA	V_R= V_{RRM}，Tj=25℃		-	-	0.15
			V_R= V_{RRM}，Tj=125℃		-	-	20

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

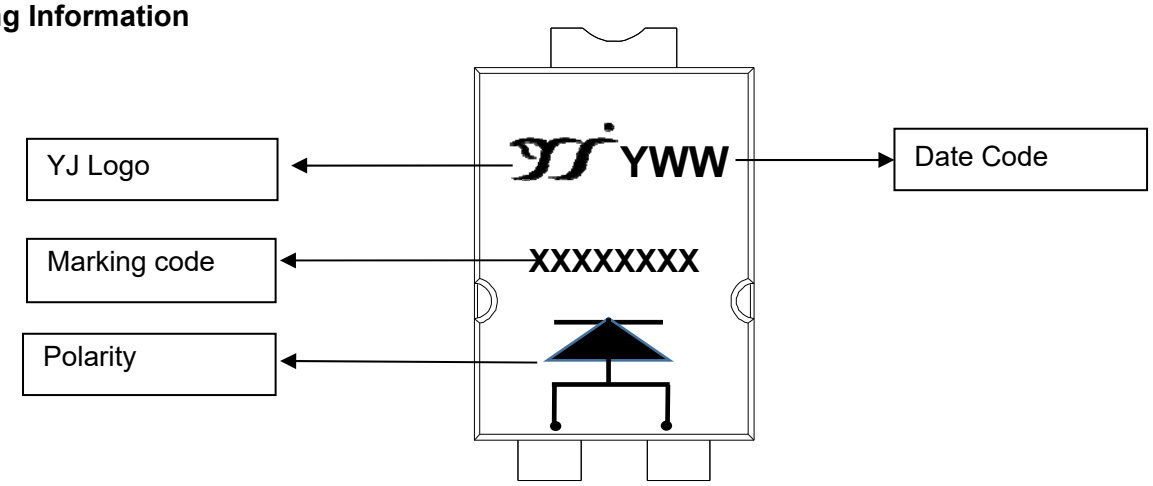
PARAMETER		SYMBOL	UNIT	SS5U50PAQ / SS5U60PAQ
Thermal Resistance	Junction to Case	$R_{\theta J-C}$	℃/W	8(1)
Thermal Resistance	Junction to Ambient	$R_{\theta J-A}$	℃/W	90(2)

Note
(1) Thermal resistance from junction to case mounted on P.C.B. with 16mm*16mm copper pad areas
(2) 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)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
SS5U50PAQ SS5U60PAQ	F1	Approximate 0.106	5000	10000	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 SS5U50PA
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: Io-Tc Curve

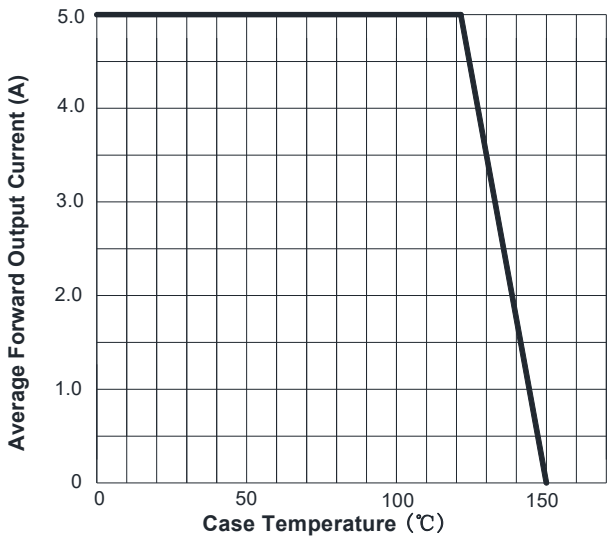


FIG.2: Forward Surge Current Capability

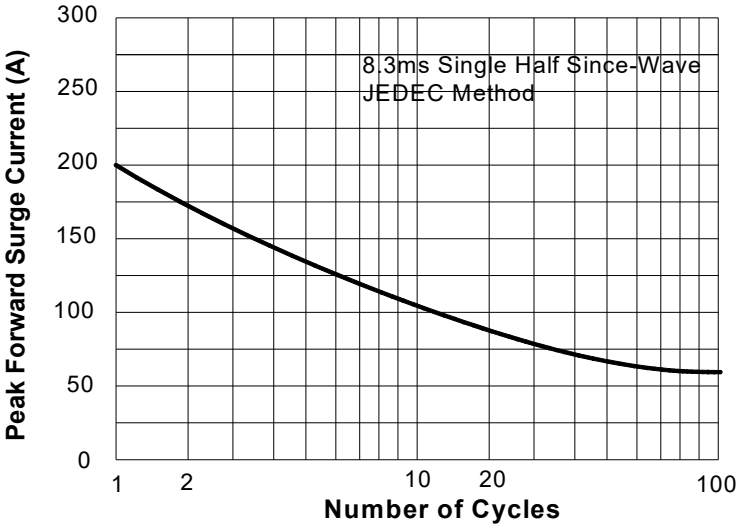


FIG3.Forward Voltage

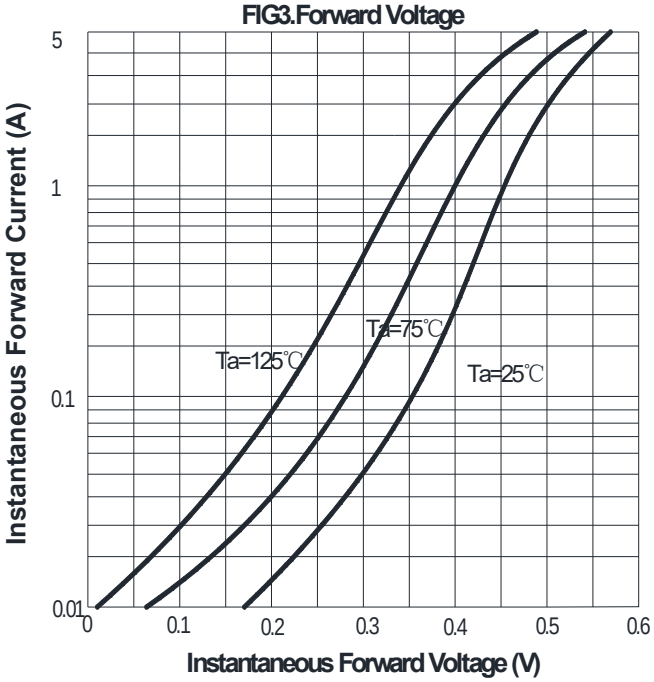
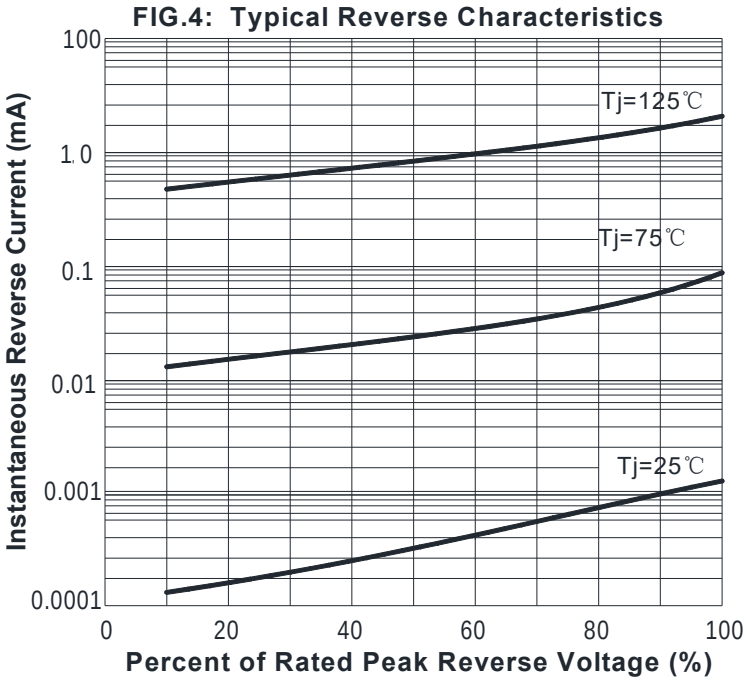
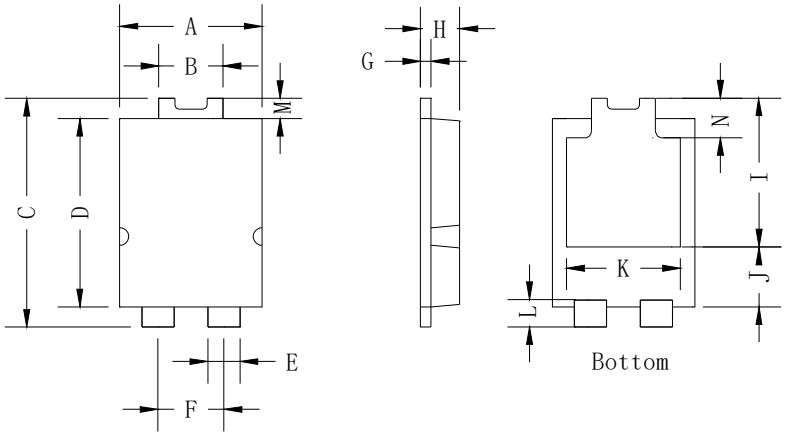


FIG.4: Typical Reverse Characteristics

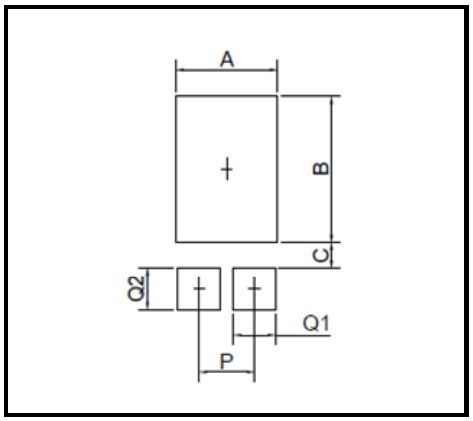


■ Outline Dimensions



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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