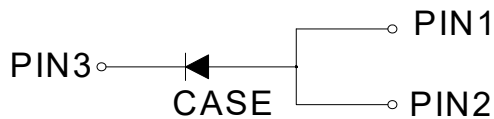
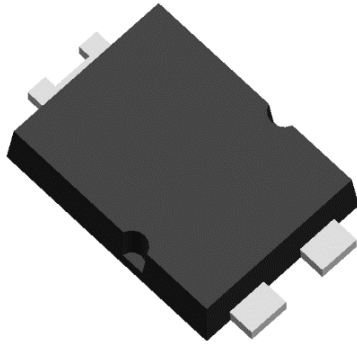


Schottky Rectifier



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)

PREFERRED P/N	PACKAGE CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
SS15U45PQ	F1	Approximate 0.0821	5000	80000	13" reel

■ Characteristics (Typical)

Fig.1: I_O - T_C Curve

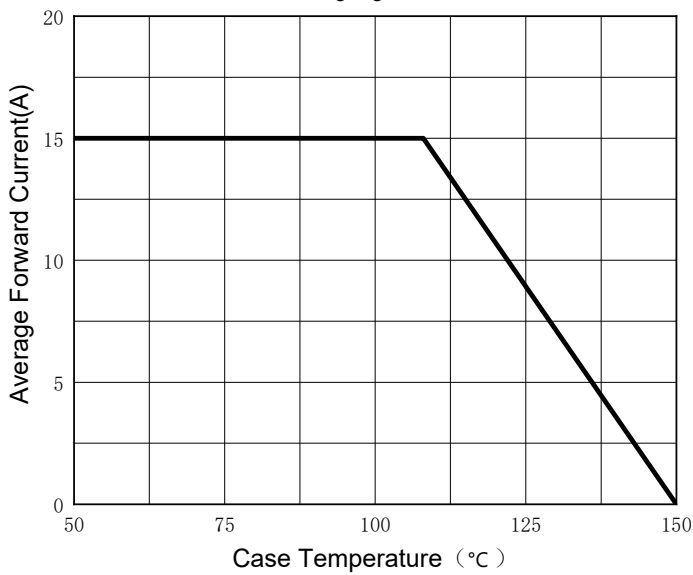


Fig.2: Forward Surge Current Capability

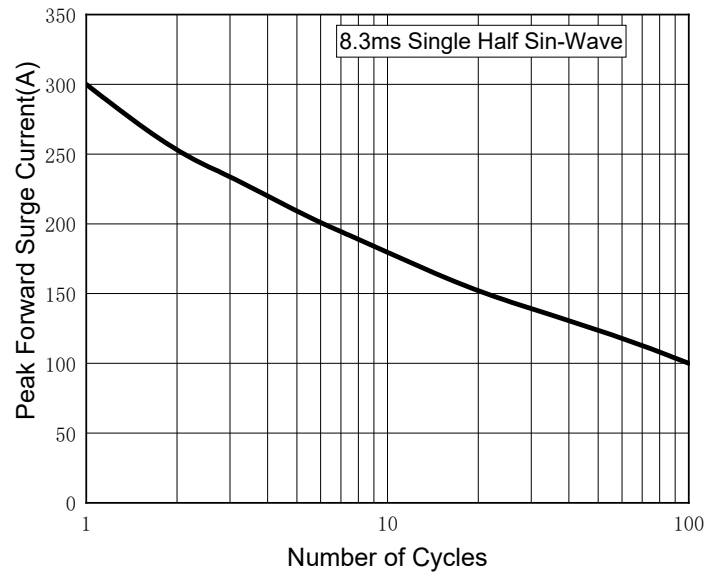


Fig.3: Typical Forward Characteristics

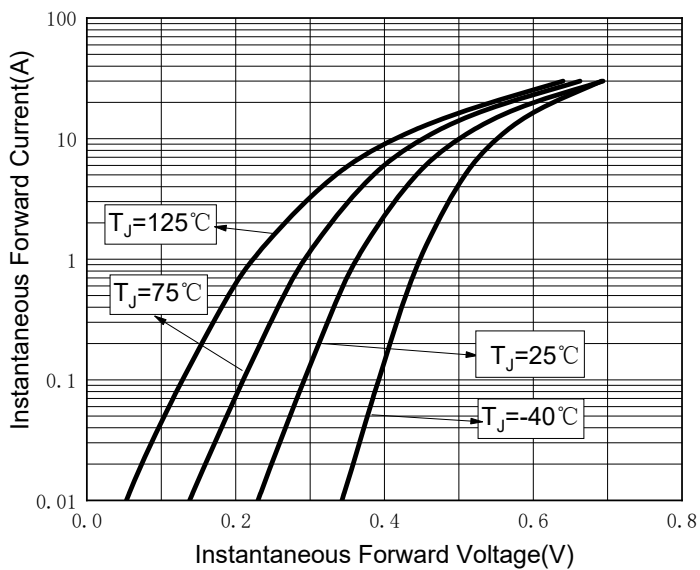


Fig.4: Typical Reverse Characteristics

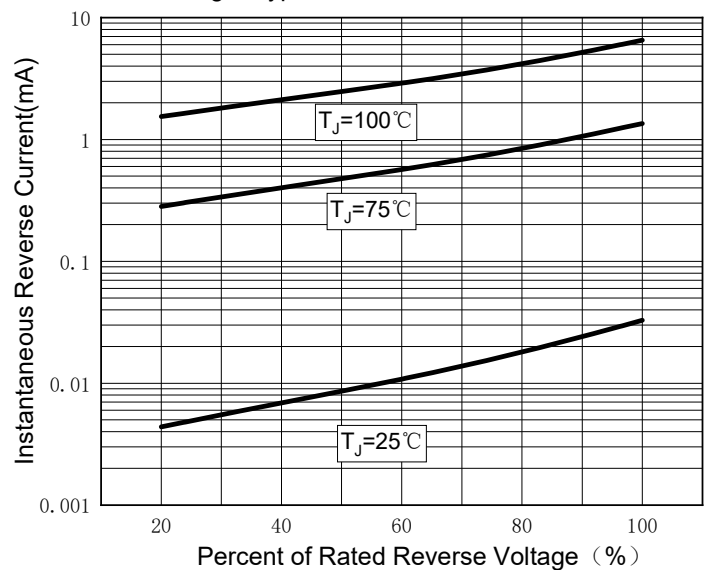
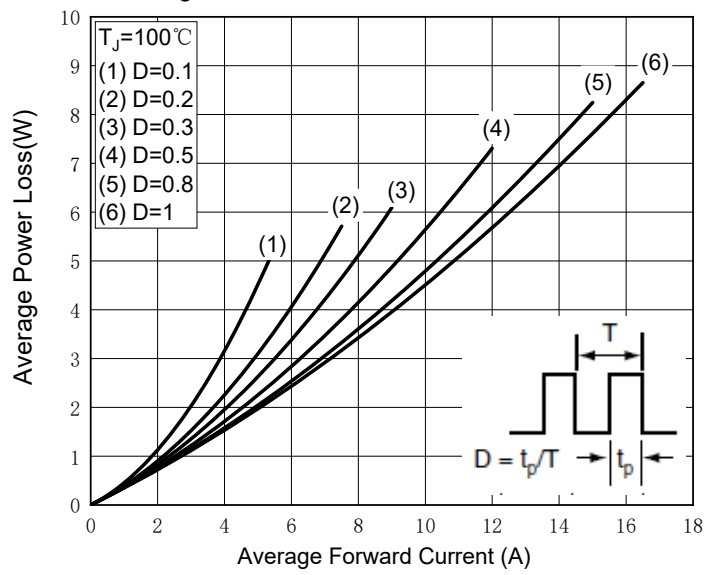
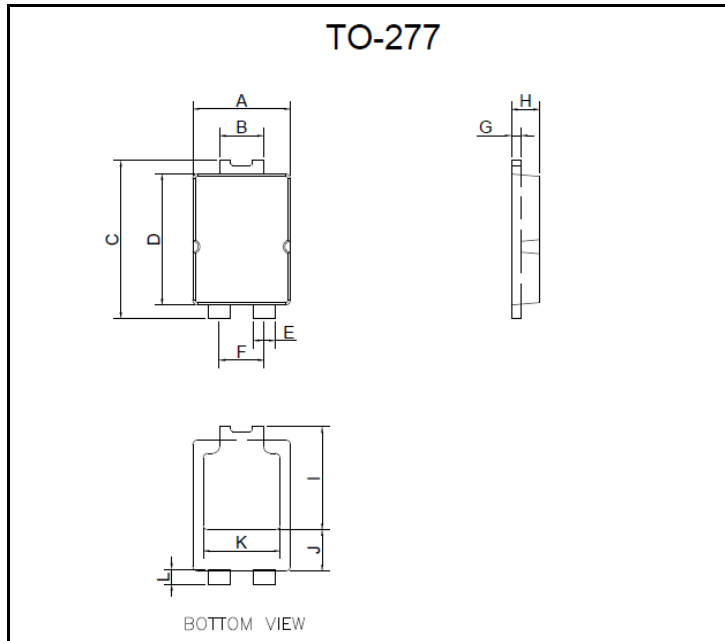


Fig.5: Forward Power Loss Characteristics



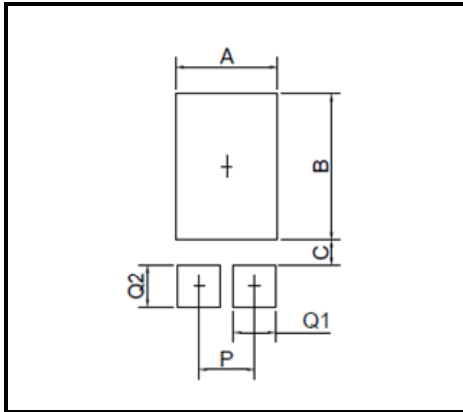
■ Outline Dimensions



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



■ 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

The information presented in this document is for reference only. Yangzhou Yangjie Electronic Technology Co., Ltd. reserves the right to make changes without notice for the specification of the products displayed herein to improve reliability, function or design or otherwise.

The product listed herein is designed to be used with automotive electronics, are not designed for use in medical, life-saving, lifesustaining, or military. Yangjie or anyone on its behalf, assumes no responsibility or liability for any damages resulting from such improper use of sale.

This publication supersedes & replaces all information previously supplied. For additional information, please visit our website [http:// www.21yangjie.com](http://www.21yangjie.com) , or consult your nearest Yangjie's sales office for further assistance.