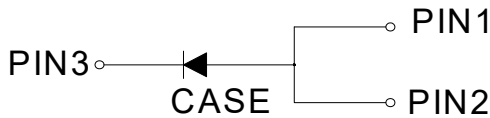
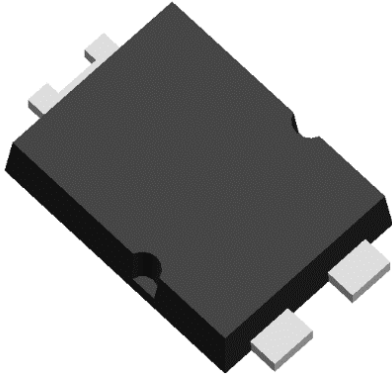


## Schottky Rectifier



### 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

### 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<sub>a</sub>=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	SS10U45
Device marking code			SS10U45
Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	V	45
Average Rectified Output Current @60Hz -sine wave, R- load, T <sub>c</sub> =90°C	I <sub>O</sub>	A	10
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave, 1 cycle, T <sub>a</sub> =25°C	I <sub>FSM</sub>	A	200
Current Squared Time @1ms≤t≤8.3ms T <sub>j</sub> =25°C	I <sup>2</sup> t	A <sup>2</sup> s	166
Storage Temperature	T <sub>stg</sub>	°C	-55 ~+150
Junction Temperature	T <sub>j</sub>	°C	-55 ~+125

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

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	Min	Typ	Max
Peak Forward Voltage	V <sub>FM</sub>	V	I <sub>FM</sub> = 10.0A, T <sub>j</sub> = 25°C	-	0.43	0.47
			I <sub>FM</sub> = 10.0A, T <sub>j</sub> = 125°C	-	0.37	0.40
Reverse Breakdown Voltage	V <sub>BR</sub>	V	I <sub>R</sub> = 0.5mA	45	-	-
Leakage Current	I <sub>R</sub>	mA	V <sub>R</sub> = 45V, T <sub>j</sub> = 25°C	-	-	0.3
			V <sub>R</sub> = 45V, T <sub>j</sub> = 100°C	-	-	50

Note1: Pulse test: 300uS pulse width, 1% duty cycle

Note2: Pulse test: pulse width 40mS



# SS10U45

## ■ Thermal Characteristics (Ta=25°C Unless otherwise specified)

PARAMETER		SYMBOL	UNIT	SS10U45
Thermal Resistance	Junction to Case	R <sub>θJ-C</sub>	°C/W	8

## ■ Ordering Information (Example)

PREFERRED P/N	PACKAGE CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
SS10U45	F1	Approximate 0.0821	5000	10000	80000	13" reel

## ■ Characteristics(Typical)

FIG.1: I<sub>o</sub>-T<sub>c</sub> Curve

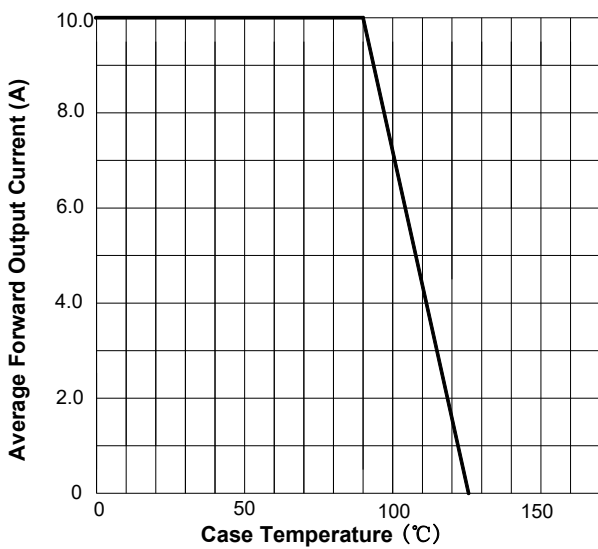


FIG.2: Forward Surge Current Capability

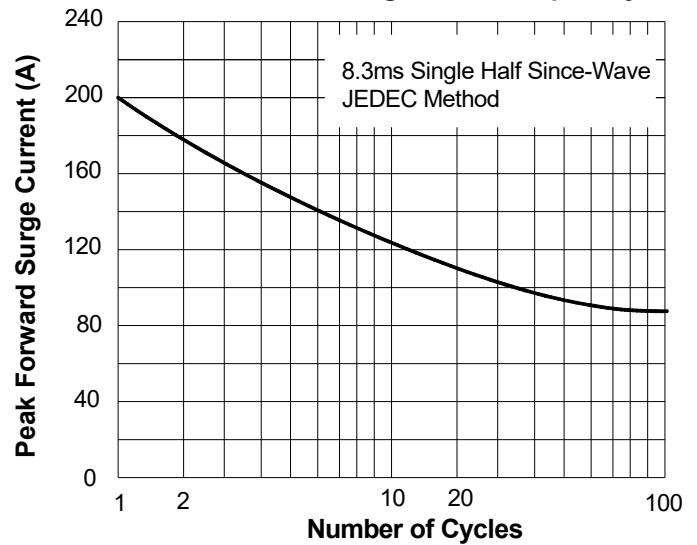


FIG.3: Forward Voltage

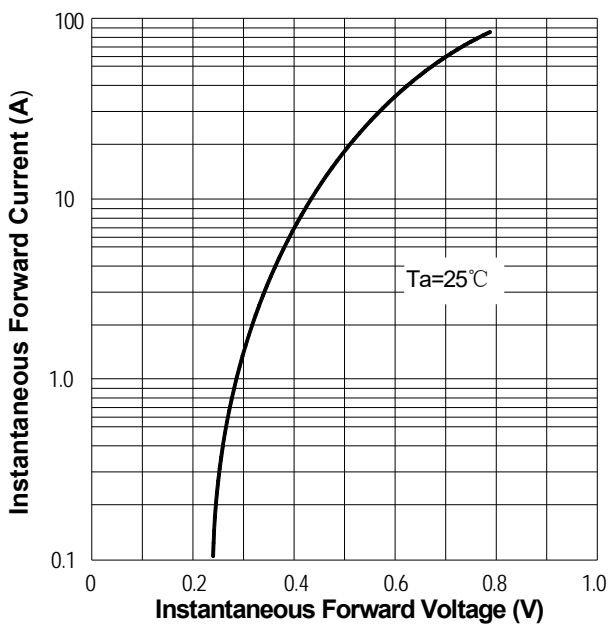
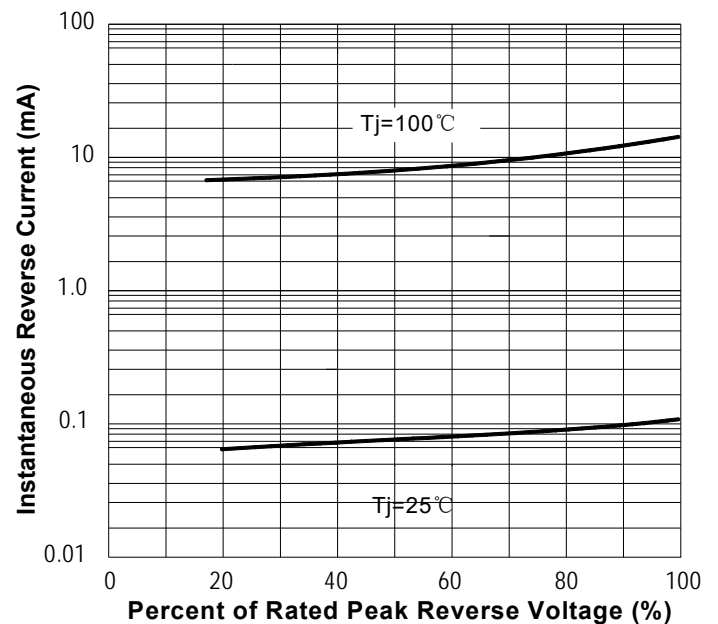
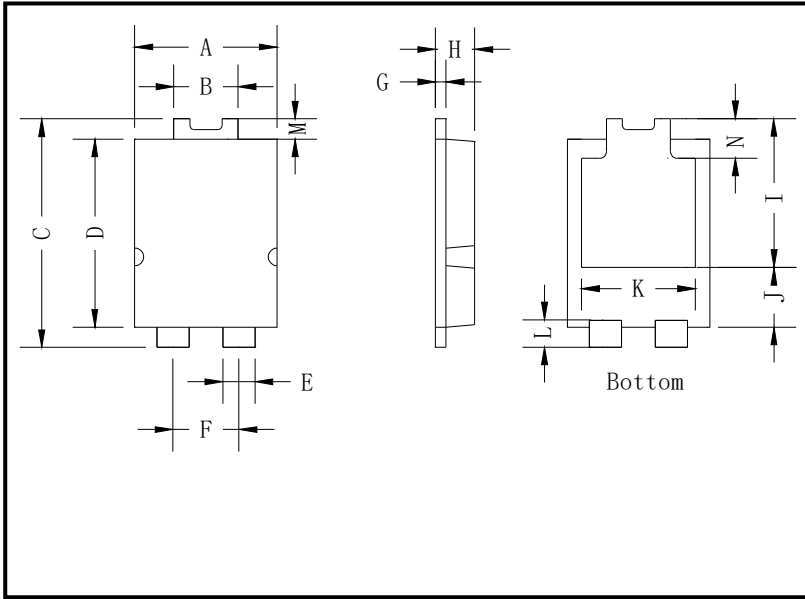


FIG.4: Typical Reverse Characteristics



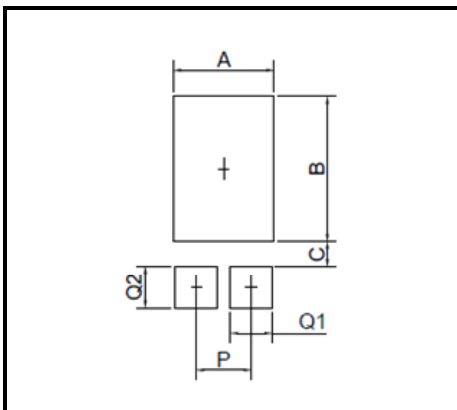


■ Outline Dimensions



TO-277		
Dim	Min(mm)	Max(mm)
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



## SS10U45

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