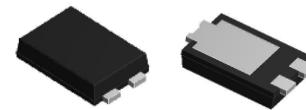




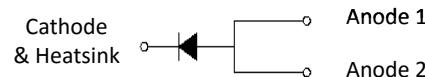
Surface Mount Schottky Rectifier
Reverse Voltage 45V , Forward Current 5A

Features

- Schottky barrier diodes
- Low forward voltage drop
- Low leakage current
- Moisture sensitivity: level 1, per J-STD-020
- Solder dip 260 °C, 10 s
- Low profile
- Heatsink design



TO-277



TYPICAL APPLICATIONS

For low voltage high frequency inverters, DC/DC converters and polarity protection application.

Maximum Ratings (Ta=25°C Unless otherwise specified)

Parameter	Symbol	Rating	Unit
Peak Repetitive Reverse Voltage	V _{RRM}		
Working Peak Reverse Voltage	V _{RWM}	45	V
Peak Reverse Voltage	V _{RM}		
RMS Reverse voltage	V _{R(RMS)}	31.5	V
Average Rectified Output Current	I _O	5	A
Non-Repetitive Peak Forward Surge Current	I _{FSM}	100	A
Junction Temperature Range	T _{j MAX}	150	°C
Storage Temperature Range	T _{stg}	-55~150	°C
Typical Thermal Resistance	R _{θJA} (Note 1)	73	°C/W

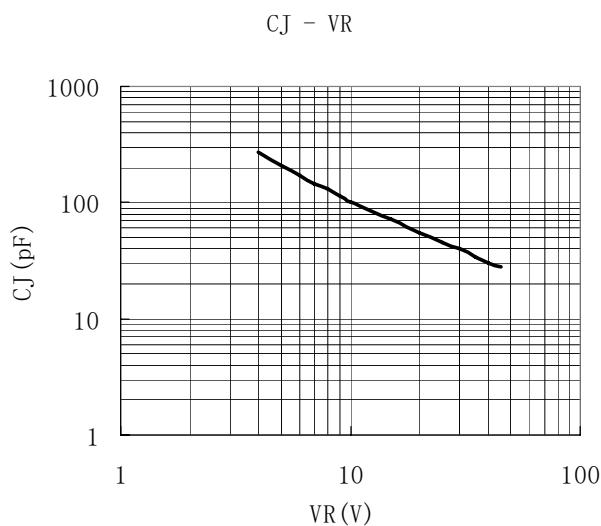
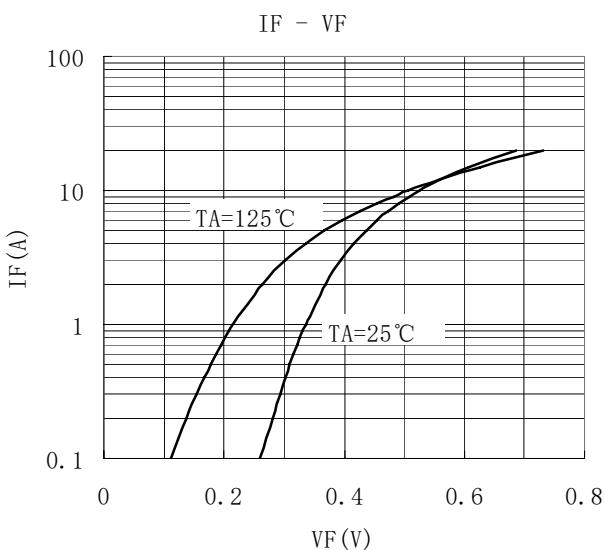
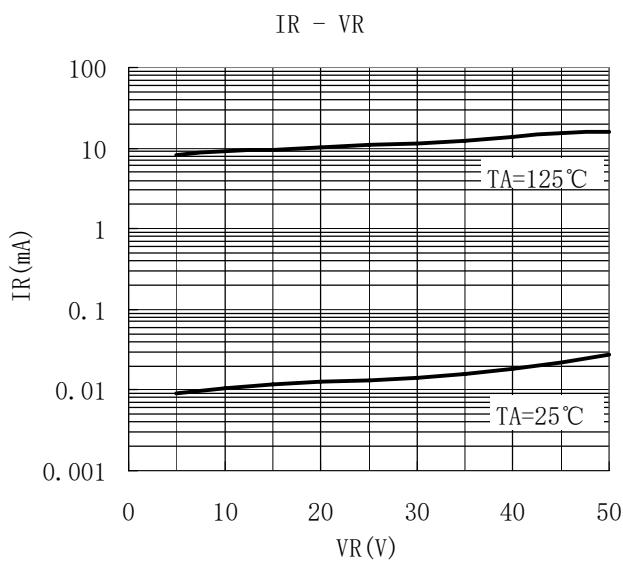
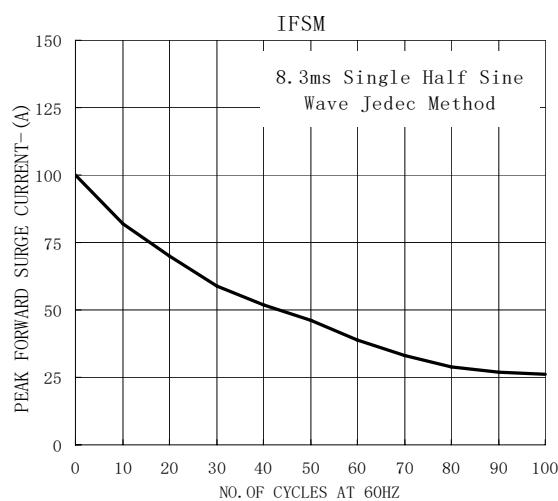
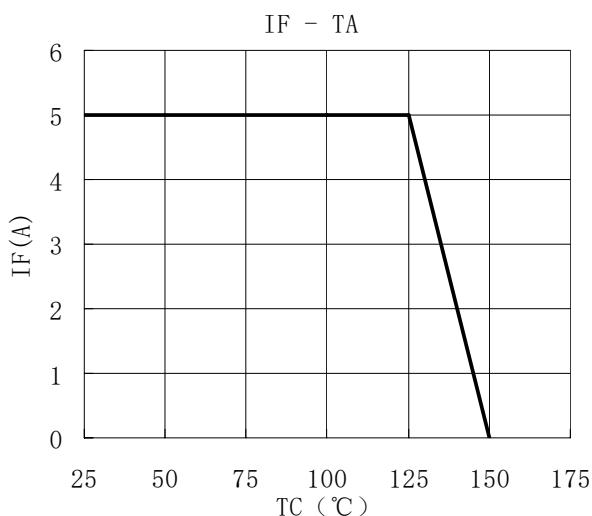
■ Electrical Characteristics (Ta=25°C Unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Reverse Voltage	V _R	I _R =0.3mA	45			V
Forward voltage	V _F	I _F =2A T _j =25°C		0.37	0.42	V
		I _F =2A T _j =125°C		0.26		V
		I _F =5A T _j =25°C		0.43	0.48	V
		I _F =5A T _j =125°C		0.37		V
Instantaneous Reverse Current	I _R (Note 2)	V _R =45V T _j =25°C		0.02	0.3	mA
		V _R =35V T _j =85°C		1.8	10	mA
		V _R =45V T _j =125°C		15	100	mA

Notes :

1. FR-4 PCB, 2oz. Copper, minimum recommended pad layout per.
2. Short duration pulse test used to minimize self-heating effect.

Rating and Characteristic Curves



PACKAGE OUTLINE DIMENSIONS

UNIT : MM		
Dim	Min	Max
A	1.05	1.25
A2	0.33	0.43
b1	0.80	0.99
b2	1.70	1.88
D	3.90	4.05
D2	3.054Typ	
E	6.40	6.60
e	1.84Typ	
E1	5.30	5.50
E2	3.549Typ	
L	0.75	0.95
L1	0.45	0.65
W	1.10	1.41

The technical drawing illustrates the package outline dimensions for the SS5U45. It includes three views: a top view showing width W, height E, lead spacing 2-b1, lead thickness e, and lead offset b2; a side view showing height E1, lead thickness e, and lead offset b2; and a front view showing width D, height E, lead spacing 2-b1, lead thickness e, lead offset b2, and lead length L1. The front view also shows the pin configuration with pins 1, 2, and 3, where pin 1 is at the bottom left, pin 2 is at the top right, and pin 3 is at the bottom right.

Pin:

```
graph LR; Pin1((1)) --> Pin2((2)); Pin3((3)) --> Pin2;
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TQ-277