

## 100V Trench MOS Barrier Schottky

Ultra Low VF 0.57V@15A, 25 °C

### Features

- Trench MOS schottky technology
- Low stored charge Majority Carrier Conduction
- Ultra low forward voltage drop
- Low leakage current
- Low power loss and high efficiency
- High surge capacity
- ESD rating:>20K volts

### Typical Application

Schottky rectifier design for high frequency switched mode power supplies, such as adaptators and on board DC/DC converters.

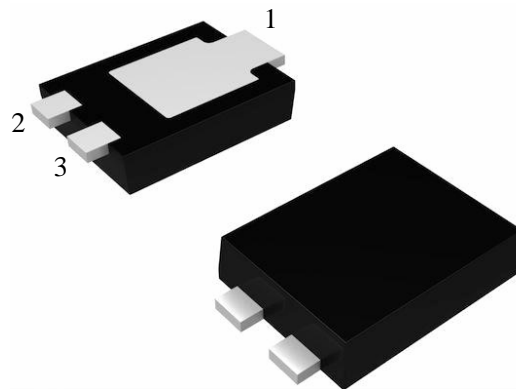
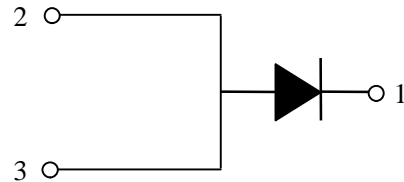
### Mechanical Data

Case: JEDEC TO-277 , molded plastic body

Terminals: Plated leads, solderable per MIL-STD-750, Method 2026

Mounting Position: Any

15 Amperes, 100 Volts



TO-277

### Device Summary

Symbol	Value
$I_F(AV)$	15 A
$V_{RRM}$	100V
$V_F(Typical)$	0.57V
$T_j(max)$	150 °C

**Note:** Pins 2 & 3 must be electrically connected at the printed circuit board.

Major Rating and Characteristics(per diode)				
Symbol	Parameter		Values	Units
$V_{RRM}$	Repetitive peak reverse voltage		100	V
$T_J$	Storage temperature range		-55 to 150	$^{\circ}\text{C}$
$I_{FSM}$	Surge non repetitive forward current	10 ms sine or 6 ms rect. pulse	350	A
$I_{F(AV)}$	Maximum average forward current 50 % duty cycle, rectangular waveform		$T_C=25^{\circ}\text{C}$ 15	

Electrical Characteristics( $T_A=25^{\circ}\text{C}$ unless otherwise noted)						
Parameter	Test condition		Symbol	TYP	MAX	UNITS
Forward Voltage drop	$I_F=5\text{A}$	$T_A=25^{\circ}\text{C}$	$V_F^{(1)}$	0.45	-	V
	$I_F=10\text{A}$			0.51		
	$I_F=15\text{A}$			0.57	0.65	
	$I_F=5\text{A}$	$T_A=125^{\circ}\text{C}$		0.41	-	
	$I_F=10\text{A}$			0.56		
	$I_F=15\text{A}$			0.52	0.60	
Reverse leakage current	$V_R=100\text{V}$	$T_A=25^{\circ}\text{C}$	$I_R^{(2)}$	-	50	$\mu\text{A}$
		$T_A=125^{\circ}\text{C}$		15	70	mA
Junction capacitance	$V_R=5V_{DC}, 25^{\circ}\text{C}(1\text{MHz})$		$C_j$	1000		pF

**Notes** (1) Pulse test: 300us pulse width,2% duty cycle (2) Pulse test: 300us pulse width,2% duty cycle

Thermal Characteristics( $T_A=25^{\circ}\text{C}$ unless otherwise noted)			
Parameter	Symbol	SK15U100AAPU	UNIT
Typical thermal resistance	$R_{JA}^{(1)}$	75	$^{\circ}\text{C}/\text{W}$
	$R_{JM}^{(2)}$	34	

**Notes**

(1) Free air, mounted on recommended PCB, 2oz.pad area; thermal resistance  $R_{JA}$ -junction to ambient

(2) Cathode pad dimensions 18.8mm x 14.4mm. Anode pad dimensions 5.6mm x 14.4mm;

$R_{JM}$ -junction to mount

## Characteristics Curves ( $T_A=25^\circ\text{C}$ unless otherwise noted)

Fig.1 Typical Forward Voltage Characteristics

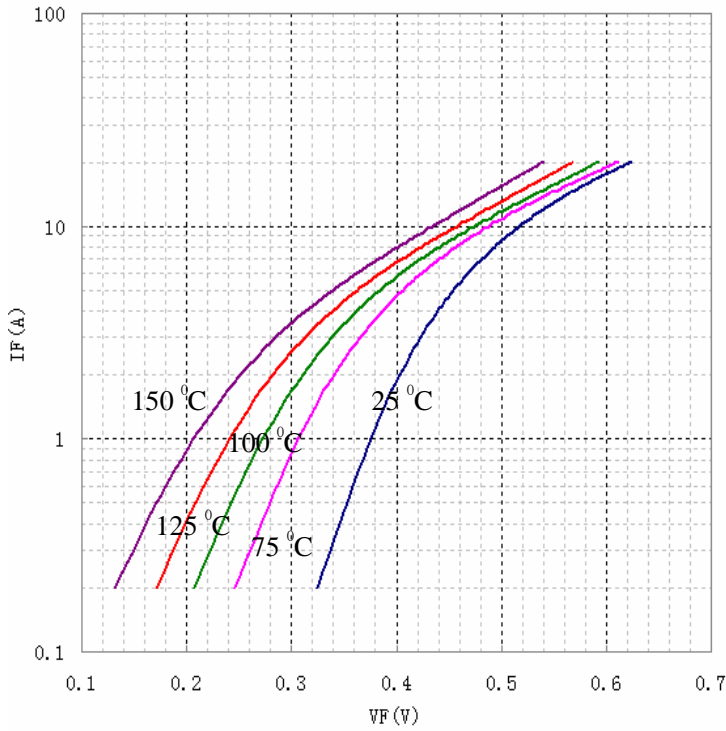
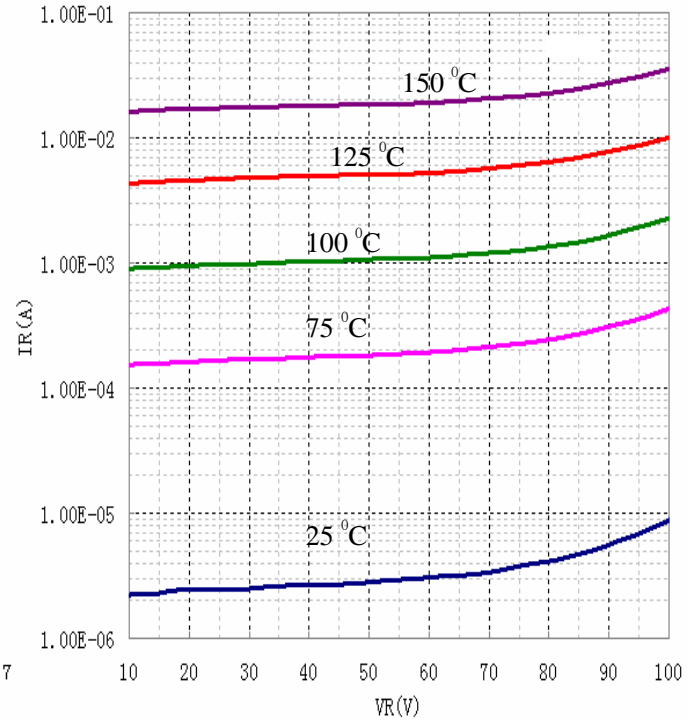
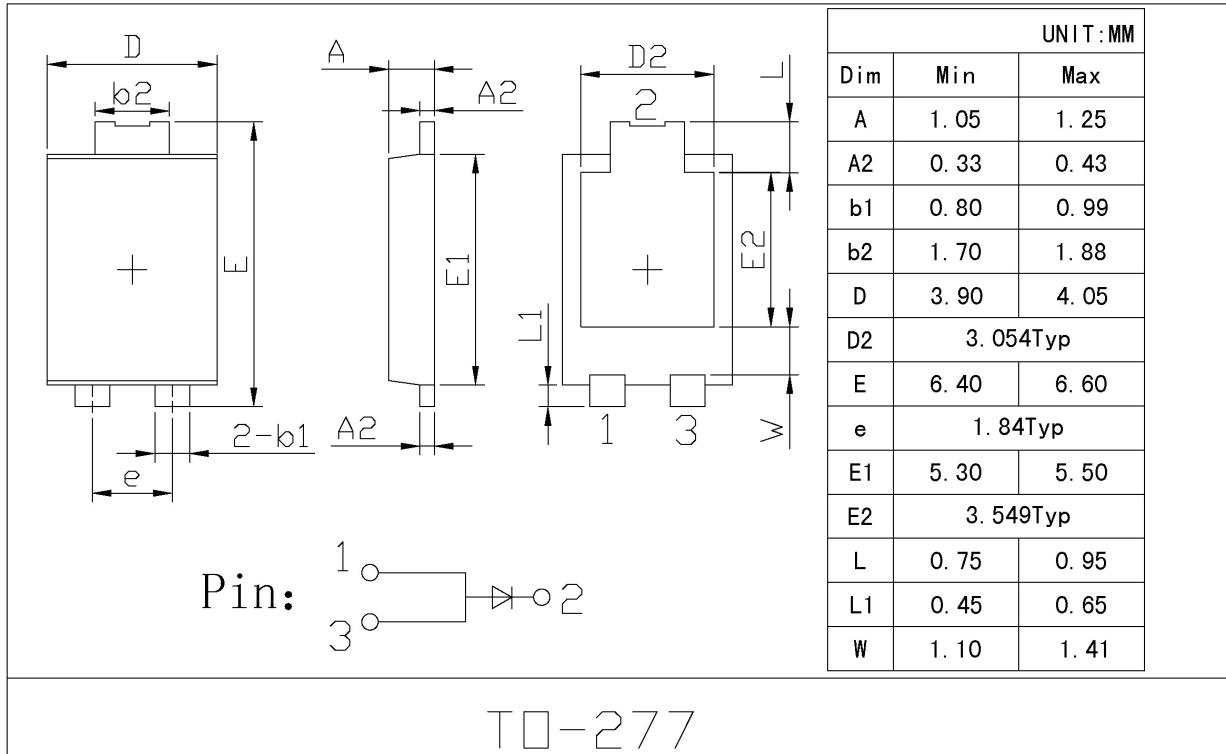


Fig.2 Typical Reverse Leakage Characteristics



## Package Outline Dimensions in Millimeters



单击下面可查看定价，库存，交付和生命周期等信息

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