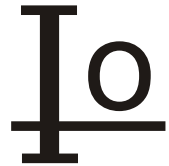


# SR10V45



## LOW VF SCHOTTKY BARRIER RECTIFIER

Reverse Voltage-45Volts

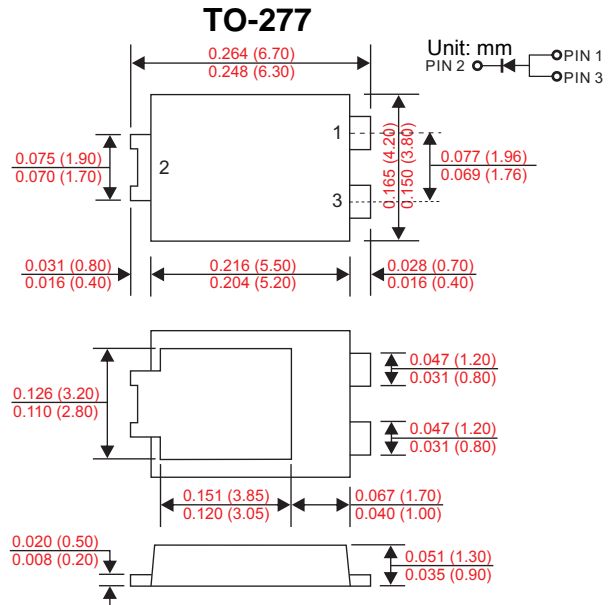
Forward Current-10Amperes

### FEATURES

- Ultra Low Forward Voltage Drop
- Very low profile-typical high of 1.15mm
- Low Power Losses,High Efficiency Operation
- High Current Capability
- Low Thermal Resistance Package
- High Operating Junction Temperature
- Plastic Case Material has UL Flammability Classification Rating 94V-O

### MECHANICAL DAT A

- Case: TO-277 molded Plastic
- Terminals:Solderable per MIL-STD-750,Method 2026
- Marking:10V45
- Weight:0.092 grams(approx)
- Lead Free:Finish / RoHS Compliant



Dimensions in inches and (millimeters)

### Maximum Ratings and Electrical Characteristics @ $T_A=25^{\circ}\text{C}$ unless otherwise specified

Characteristic	Symbol	VALUE	Unit			
Maximum repetitive peak reverse voltage	$V_{RRM}$	<b>45</b>	V			
Maximum RMS voltage	$V_{RMS}$	<b>32</b>	V			
Maximum DC blocking voltage	$V_R$	<b>45</b>	V			
Maximum average forward rectified current	$I_{F(AV)}$	<b>10</b>	A			
Peak forward surge current:8.3ms single half sine-wave superimposed on rated load	$I_{Fsm}$	<b>280</b>	A			
PARAMETER	Symbol	TEST CONDITIONS	MIN.	TYP.	MAX.	Unit
Breakdown voltage	$V_{BR}$	$I_R=0.5\text{mA}$ $T_J=25^{\circ}\text{C}$	45	-	-	V
Instantaneous forward voltage	$V_F$	$I_F=2\text{A}$ $T_J=25^{\circ}\text{C}$	-	0.33	-	V
		$I_F=5\text{A}$ $T_J=25^{\circ}\text{C}$	-	0.38	-	V
		$I_F=10\text{A}$	-	0.42	0.45	V
		$I_F=2\text{A}$ $T_J=125^{\circ}\text{C}$	-	0.22	-	V
Reverse current	$I_R$	$V_R=36\text{V}$ $T_J=25^{\circ}\text{C}$	-	-	200	$\mu\text{A}$
		$V_R=45\text{V}$ $T_J=25^{\circ}\text{C}$	-	-	0.25	mA
		$V_R=45\text{V}$ $T_J=125^{\circ}\text{C}$	-	-	100	mA
Voltage Rate of Change (Rated $V_R$ )	$dV/dt$	10,000			$V/\mu\text{s}$	
Thermal Resistance,Junction-to-Case (Note1)	$R_{\theta JC}$	31			$^{\circ}\text{C}/\text{W}$	
Operating temperature range	$T_J$	-40 to + 150			$^{\circ}\text{C}$	
Storage temperature range	$T_{STG}$	-40 to + 150			$^{\circ}\text{C}$	

**Note:** (1)Thermal resistance from junction to ambient at 0.375"(9.5mm) lead length,P.C.B mounted

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

## RATING AND CHARACTERISTIC CUEVES (SR10V45 )

