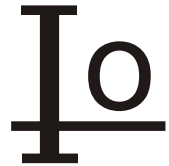


SR10V45



LOW VF SCHOTTKY BARRIER RECTIFIER

Reverse Voltage-45Volts

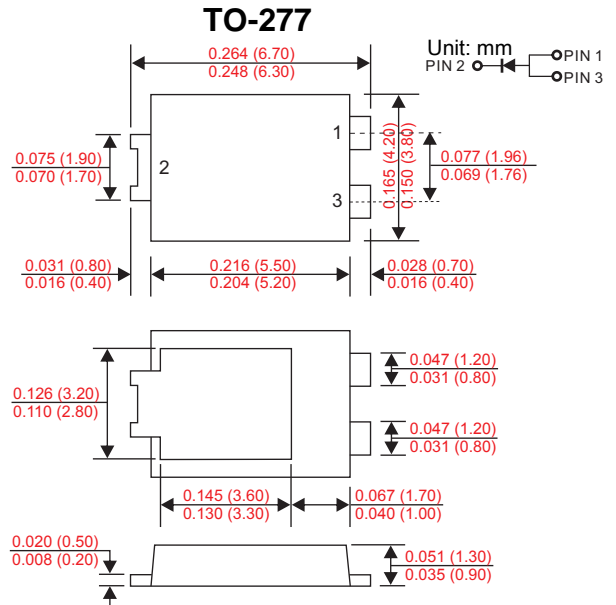
Forward Current-10Amperes

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



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}	45	V			
Maximum RMS voltage	V_{RMS}	32	V			
Maximum DC blocking voltage	V_R	45	V			
Maximum average forward rectified current	$I_{F(AV)}$	10	A			
Peak forward surge current:8.3ms single half sine-wave superimposed on rated load	I_{Fsm}	280	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	$I_F=2\text{A}$	-	0.33	-	V
		$I_F=5\text{A}$ $T_J=25^{\circ}\text{C}$	-	0.38	-	
		$I_F=10\text{A}$	-	0.42	0.45	
		$I_F=2\text{A}$	-	0.22	-	V
$I_F=5\text{A}$ $T_J=125^{\circ}\text{C}$	-	0.28	-			
$I_F=10\text{A}$	-	0.35	0.38			
Reverse current	I_R	$V_R=36\text{V}$ $T_J=25^{\circ}\text{C}$	-	-	200	μA
		$V_R=45\text{V}$ $T_J=25^{\circ}\text{C}$	-	-	0.25	mA
		$V_R=45\text{V}$ $T_J=125^{\circ}\text{C}$	-	-	100	mA
Thermal Resistance,Junction-to-Case (Note1)	$R_{\theta JC}$	31				$^{\circ}\text{C/W}$
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)

