



### ULTRA LOW VF SCHOTTKY BARRIER RECTIFIER

Voltage

80 V

Current

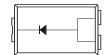
15 A

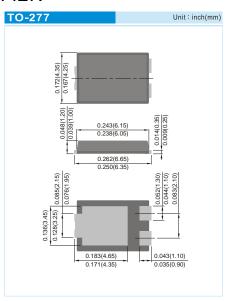
#### **Features**

- Ideal for automated placement
- Ultra low forward voltage drop, low power loss
- High efficiency operation
- Low thermal resistance
- Ultra thin profile package for space constrained utilization
- Easy pick and place package suitable for automated handling
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Green molding compound as per IEC61249 Std. . (Halogen Free)

#### Mechanical Data

- Case: TO-277 package
- Terminals: solder plated, solderable per MIL-STD-750, Method 2026
- Weight: 0.0038 ounces, 0.1073 grams.
- Marking: Part number





## Maximum Ratings And Electrical Characteristics (T<sub>A</sub>=25°C unless otherwise noted)

PARAMETER	SYMBOL	LIMIT	UNIT		
TARAMETER		STIVIDOL	Elivii i	OIVII	
Maximum repetitive peak reverse voltage		Vrrm	80	V	
Maximum rms voltage	VRMS	56	V		
Storage temperature range	VR	80	V		
Maximum average forward rectified current		<b>I</b> F(AV)	15	Α	
Peak forward surge current : 8.3ms single half sine- wave superimposed on rated load		İfsm	250	А	
Typical thermal resistance	(Note 1)	R⊚JC	3.5	°C/W	
	(Note 2)	R⊕JA	110		
Operating junction temperature range		TJ	-55 to +150	°C	
Storage temperature range		Тѕтс	-55 to +150	°C	

Note: 1. Mounted on a 10cm\*10cm\*0.5mm copper pad area.

2. Mounted on a FR4 PCB, single-sided copper, mini pad.



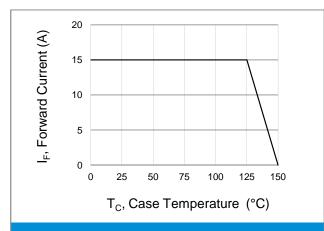


# Electrical Characteristics (T<sub>A</sub>=25°C unless otherwise noted)

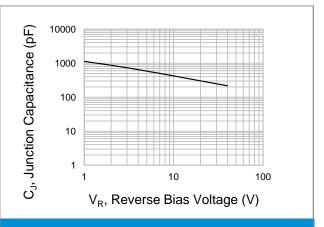
PARAMETER	SYMBOL	TEST CONDITION		MIN.	TYP.	MAX.	UNITS
Breakdown voltage	$V_{BR}$	I <sub>R</sub> =0.5mA	T <sub>J</sub> =25°C	80	-	-	٧
Instantaneous forward voltage	V <sub>F</sub>	I <sub>F</sub> =1A	TJ=25°C	-	0.39	-	V
		I <sub>F</sub> =5A		-	0.5	-	
		I <sub>F</sub> =10A		-	0.58	-	
		I <sub>F</sub> =15A		-	0.67	0.72	
		I <sub>F</sub> =1A	TJ=125°C	-	0.27	-	V
		I <sub>F</sub> =5A		-	0.42	-	
		I <sub>F</sub> =10A		-	0.52	-	
Reverse current	I <sub>R</sub>	V <sub>R</sub> =56V	TJ=25°C	-	7	-	μΑ
		V <sub>R</sub> =80V	T <sub>J</sub> =25°C	-	-	100	μА
			T <sub>J</sub> =125°C	-	13	-	mA



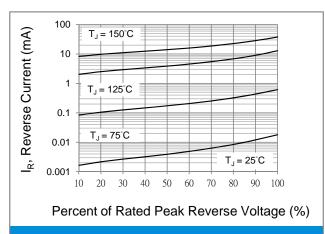




**Fig.1 Forward Current Derating Curve** 



**Fig.2 Typical Junction Capacitance** 



**Fig.3 Typical Reverse Characteristics** 

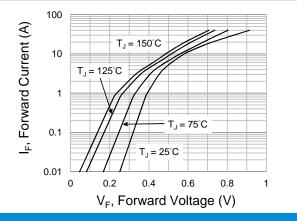
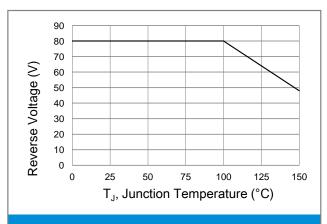


Fig.4 Typical Forward Characteristics

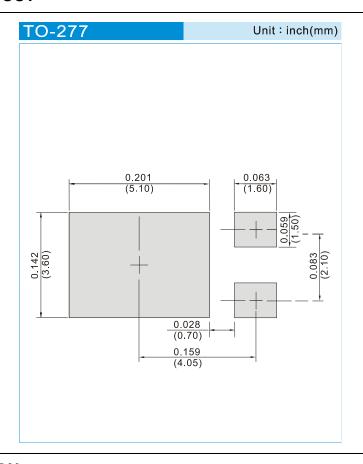


**Fig.5 Operating Temperature Derating Curve** 





#### **MOUNTING PAD LAYOUT**



### **ORDER INFORMATION**

Packing information
 T/R – 5K per 13" plastic Reel

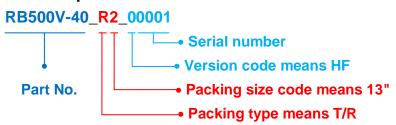




### Part No\_packing code\_Version

SV1580V\_R2\_00001

### For example:



Packing Code XX				Version Code XXXXX		
Packing type	1 <sup>st</sup> Code	Packing size code	2 <sup>nd</sup> Code	HF or RoHS	1 <sup>st</sup> Code	2 <sup>nd</sup> ~5 <sup>th</sup> Code
Tape and Ammunition Box (T/B)	A	N/A	0	HF	0	serial number
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number
Bulk Packing (B/P)	В	13"	2			
Tube Packing (T/P)	Т	26mm	X			
Tape and Reel (Right Oriented) (TRR)	S	52mm	Y			
Tape and Reel (Left Oriented) (TRL)	L	PANASERT T/B CATHODE UP (PBCU)	U			
FORMING	F	PANASERT T/B CATHODE DOWN (PBCD)	D			





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