

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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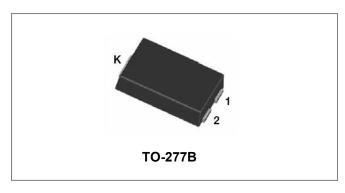




Technical Data Data Sheet N1377, Rev. C



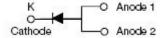




Features

- Designed as Bypass Diodes for Solar Panels
- High Forward Surge Capability
- Ultra Low Forward Voltage Drop
- Excellent High Temperature Stability
- This is a Halogen Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

Circuit Diagram



Applications

- Switching power supply
- Converters
- Free-Wheeling diodes
- Reverse battery protection

Maximum Ratings:

Characteristics	Symbol	Condition	Max.	Units
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	$egin{array}{c} V_{RRM} \ V_{RWM} \ V_{R} \end{array}$	-	60	V
Average Rectified Forward Current	I _{F (AV)}	50% duty cycle @Tc=80°C, rectangular wave form	10	Α
Peak One Cycle Non-Repetitive Surge Current	I _{FSM}	8.3ms, Half Sine pulse, Tc=25°C	200	Α

Electrical Characteristics:

Characteristics	Symbol	Condition	Тур.	Max.	Units
Forward Voltage Drop *	V _{F1}	@ 10A, Pulse, T _J = 25 °C	-	0.63	V
Reverse Current*	I _{R1}	$@V_R = rated V_R$ $T_J = 25 °C$	-	1.0	mA
Junction Capacitance	Cj	@V _R = 5.0 V, Tc=25 °C f _{SIG} = 1MHz	-	850	pF

^{*} Pulse width < 300 μ s, duty cycle < 2%



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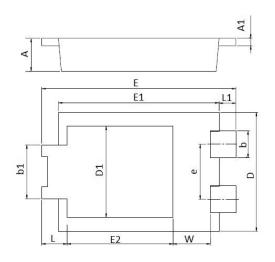




Thermal-Mechanical Specifications:

Characteristics	Symbol	Condition	Specification	Units
Junction Temperature	TJ	-	-55 to +150	°C
Storage Temperature	T _{stg}	-	-55 to +150	°C
Typical Thermal Resistance Junction to Case	R ₀ JC	DC operation	6.0	°C/W
Typical Thermal Resistance Junction to Soldering Point	R _θ JS	DC operation	1.5	°C/W
Approximate Weight	wt	-	0.08	g

Mechanical Dimensions TO-277B





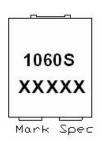
SYMBOL	Millimeters		Inches		
STWIDOL	Min.	Max.	Min.	Max.	
Α	0.95	1.25	0.037	0.049	
A1	0.20	0.30	0.008	0.012	
b	0.85	0.95	0.033	0.037	
b1	1.70	1.90	0.067	0.075	
D	3.88	4.08	0.153	0.161	
D1	2.90	3.20	0.114	0.126	
е	1.74	1.94	0.069	0.076	
E	6.30	6.70	0.248	0.264	
E1	5.28	5.48	0.208	0.216	
E2	3.40	3.70	0.134	0.146	
L	0.70	1.00	0.028	0.039	
L1	0.41	0.71	0.016	0.028	
W	1.10	1.40	0.043	0.055	

Ordering Information

Device	Package	Shipping	
MBR1060S	TO-277B(Pb-Free)	5000pcs/ reel	

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

Marking Diagram



Where XXXXX is YYWWL

10 = Forward Current (10A) 60 = Reverse Voltage (60V) S = Package type YY = Year WW = Week L = Lot Number

Cautions: Molding resin

Epoxy resin UL:94V-0

[•] China - Germany - Korea - Singapore - United States •

[•] http://www.smc-diodes.com - sales@ smc-diodes.com •



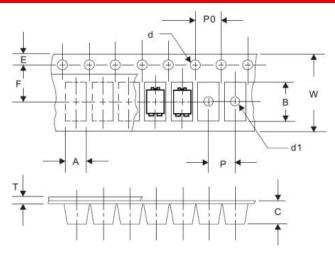
Technical Data

Data Sheet N1377, Rev. C





Carrier Tape Specification TO-277B



SYMBOL	Millimeters		
STIMBUL	Min.	Max.	
Α	4.28	4.48	
В	6.80	7.10	
С	1.30	1.50	
d	1.40	1.60	
d1	-	1.50	
E	1.65	1.85	
F	5.40	5.60	
Р	7.90	8.10	
P0	3.90	4.10	
Т	0.24	0.44	
W	11.70	12.30	

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