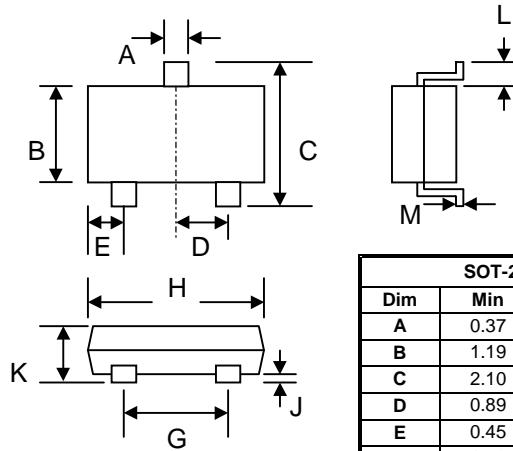


### Features

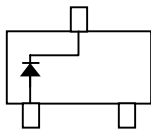
- Low Turn-on Voltage
- Fast Switching
- PN Junction Guard Ring for Transient and ESD Protection
- Designed for Surface Mount Application
- Plastic Material – UL Recognition Flammability Classification 94V-O



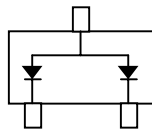
SOT-23		
Dim	Min	Max
A	0.37	0.51
B	1.19	1.40
C	2.10	2.50
D	0.89	1.05
E	0.45	0.61
G	1.78	2.05
H	2.65	3.05
J	0.013	0.15
K	0.89	1.10
L	0.45	0.61
M	0.076	0.178
All Dimensions in mm		

### Mechanical Data

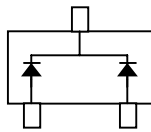
- Case: SOT-23, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: See Diagrams Below
- Weight: 0.008 grams (approx.)
- Mounting Position: Any
- **Lead Free: For RoHS / Lead Free Version, Add "-LF" Suffix to Part Number, See Page 4**



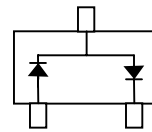
TOP VIEW



TOP VIEW



TOP VIEW



TOP VIEW

MMBD717 Marking: P70    MMBD717A Marking: P72    MMBD717C Marking: P73    MMBD717S Marking: P74

### Maximum Ratings and Electrical Characteristics, Single Diode @<sub>T<sub>A</sub></sub>=25°C unless otherwise specified

Characteristic	Symbol	Value	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V <sub>RRM</sub> V <sub>RWM</sub> V <sub>R</sub>	20	V
Forward Continuous Current (Note 1)	I <sub>F</sub>	200	mA
Forward Surge Current (Note 1) @ t < 1.0s	I <sub>FSM</sub>	600	mA
Power Dissipation (Note 1)	P <sub>d</sub>	350	mW
Typical Thermal Resistance, Junction to Ambient Air (Note 1)	R <sub>θJA</sub>	357	°C/W
Operating and Storage Temperature Range	T <sub>j</sub> , T <sub>STG</sub>	-55 to +125	°C

Note: 1. Device on fiberglass substrate.

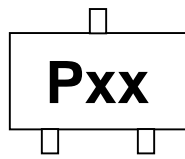
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**Maximum Ratings and Electrical Characteristics, Single Diode** @ $T_A=25^{\circ}\text{C}$  unless otherwise specified

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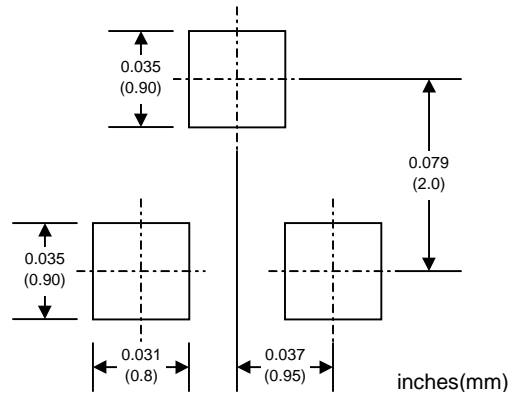
Characteristic	Symbol	Min	Max	Unit	Test Condition
Reverse Breakdown Voltage	$V_{(BR)R}$	20	—	V	@ $I_R = 10\mu\text{A}$
Forward Voltage	$V_F$	—	370	mV	@ $I_F = 1.0\text{mA}$ , $t_p < 300\mu\text{s}$
Reverse Leakage Current	$I_R$	—	200	nA	@ $V_R = 10\text{V}$ , $t_p < 300\mu\text{s}$
Junction Capacitance	$C_j$	—	2.5	pF	$V_R = 0\text{V}$ , $f = 1.0\text{MHz}$
Reverse Recovery Time	$t_{rr}$	—	5.0	nS	$I_F = 10\text{mA}$ through $I_R = 10\text{mA}$ to $I_R = 1.0\text{mA}$ , $R_L = 100\Omega$

## MARKING INFORMATION



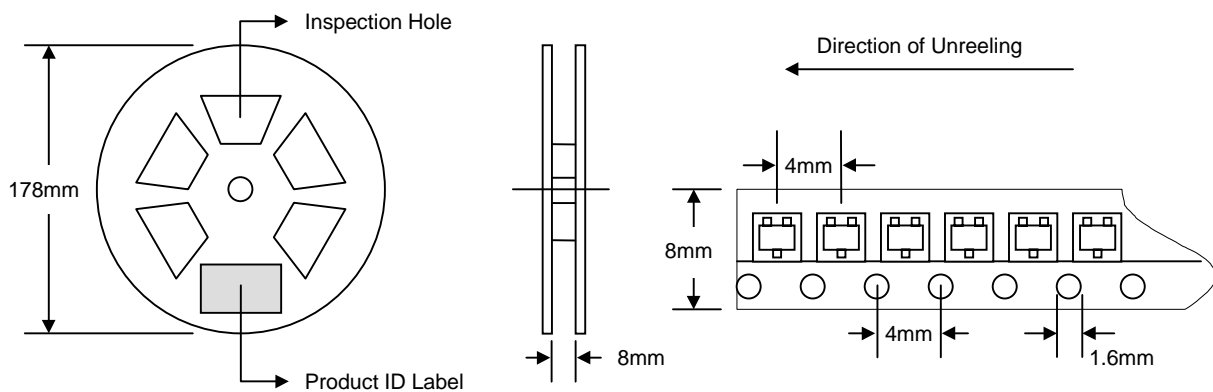
Pxx = Device Code  
 xx = 70 (MMBD717)  
       72 (MMBD717A)  
       73 (MMBD717C)  
       74 (MMBD717S)

## RECOMMENDED FOOTPRINT



## PACKAGING INFORMATION

### TAPE & REEL



Reel Diameter (mm)	Quantity (PCS)	Inner Box Size L x W x H (mm)	Quantity (PCS)	Carton Size L x W x H (mm)	Quantity (PCS)	Approx. Gross Weight (KG)
178	3,000	187 x 187 x 65	15,000	390 x 240 x 420	150,000	10.0

**Note:** 1. Anti-static plastic reel, white, water clear or blue color. Inspection hole might be varied in different alignment.  
 2. Components are packed in accordance with EIA standard 481-1 and 481-2.

## ORDERING INFORMATION

Product No.	Package Type	Shipping Quantity
MMBD717-T1	SOT-23	3000/Tape & Reel
MMBD717A-T1	SOT-23	3000/Tape & Reel
MMBD717C-T1	SOT-23	3000/Tape & Reel
MMBD717S-T1	SOT-23	3000/Tape & Reel

1. Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.
2. **To order RoHS / Lead Free version (with Lead Free finish), add "-LF" suffix to part number above. For example, MMBD717-T1-LF.**

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**Won-Top Electronics Co., Ltd.**

No. 44 Yu Kang North 3rd Road, Chine Chen Dist., Kaohsiung, Taiwan

**Phone:** 886-7-822-5408 or 886-7-822-5410

**Fax:** 886-7-822-5417

**Email:** sales@wontop.com

**Internet:** <http://www.wontop.com>

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