

2W10 Datasheet



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DiGi Electronics Part Number	2W10-DG
Manufacturer	MDD
Manufacturer Product Number	2W10
Description	BRIDGE RECT 1PHASE 1KV 2A WOM
Detailed Description	Bridge Rectifier Single Phase Standard 1 kV Through Hole WOM

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Purchase and inquiry

Manufacturer Product Number:	Manufacturer:
2W10	MDD
Series:	Product Status:
WOM	Active
Diode Type:	Technology:
Single Phase	Standard
Voltage - Peak Reverse (Max):	Current - Average Rectified (Io):
1 kV	83 mA
Voltage - Forward (Vf) (Max) @ If:	Current - Reverse Leakage @ Vr:
1.1 V @ 2 A	10 µA @ 1000 V
Operating Temperature:	Mounting Type:
-55°C ~ 150°C (Tj)	Through Hole
Package / Case:	Supplier Device Package:
4-Circular, WOM	WOM

Environmental & Export classification

RoHS Status:	Moisture Sensitivity Level (MSL):
ROHS3 Compliant	1 (Unlimited)
REACH Status:	ECCN:
REACH Unaffected	EAR99
HTSUS:	
8541.10.0080	

SPECIFICATION SHEET

SPECIFICATION SHEET NO.	N0626- WOM2W10000L20A
DATE	June. 26, 2021
REVISION	A1
DESCRIPTION	Thru Hole Silicon Bridge Rectifier, WOM Series, 2W10 Type, 4 Pins, Reverse Voltage 1000V Max. Forward Current 2 A Max. Operating Temp. Range -55°C ~+125°C, Package in Bulk, 1000pcs/Box RoHS/RoHS III compliant
CUSTOMER	
CUSTOMER PART NUMBER	
CROSS REF. PART NUMBER	
ORIGINAL PART NUMBER	MDD 2W10
PART CODE	WOM2W10000L20A

VENDOR APPROVE			
Issued/Checked/Approved			
DATE: June 26, 2021			

CUSTOMER APPROVE
DATE:

THRU HOLE BRIDGE RECTIFIER WOM SERIES**MAIN FEATURE**

- The plastic package carries Underwrite Laboratory Flammability Classification 94V-0
- Low reverse package
- High forward surge current capability
- High temperature soldering guaranteed: 260°C /10 second, 5 lbs.(2.3kg) tension

**APPLICATION**

- For printed circuit board

RFQ[Request For Quotation](#)**PART CODE GUIDE**

WOM	2W10000	L	20A
1	2	3	4

- 1) **WOM**: Thru Hole Silicon Bridge Rectifier, WOM Series, 4 Pins
- 2) **2W10000**: Type code for original part number 2W10
- 3) **L**: Package code, In Bulk, 500pcs/Box.
- 4) **20A**: Specification code for Reverse Voltage 1000V Max. Forward Current 2.0A Max

MORE ITEMS AVAILABLE

WOM2W00500L205	WOM2W01000L210	WOM2W02000L220	WOM2W04000L240
WOM2W06000L260	WOM2W08000L280	WOM2W10000L20A	

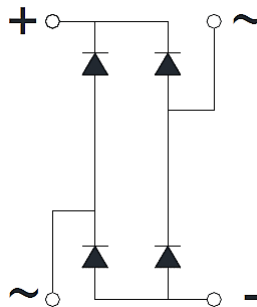
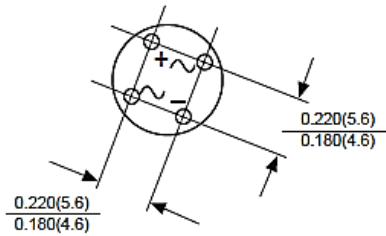
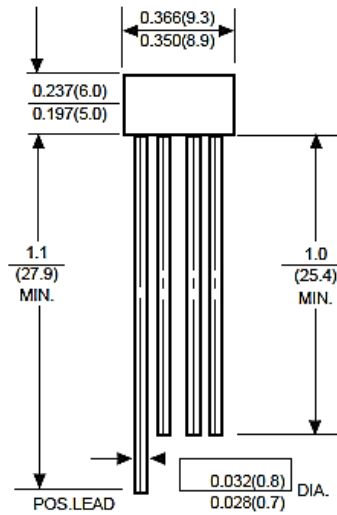
THRU HOLE BRIDGE RECTIFIER WOM SERIES**DIMENSION (Unit: Inch/mm)**

Image for reference



Marking: 2W10

WOM



THRU HOLE BRIDGE RECTIFIER WOM SERIES**MECHANICAL DATA**

Case	Terminals	Polarity	Mounting Position	Weight per piece
JEDEC WOM molded plastic body	Solder plated, Solderable per MIL-STD-750, Method 2026	Polarity symbol marking on body	Any	0.050 Ounce, 1.420 grams

MAX. RATING & CHARACTERISTICS

Parameter		SYMBOLS	VALUE			UNITS
			Min.	Typical	Max.	
Repetitive peak reverse voltage		V _{RRM}			1000	Volts
RMS voltage		V _{RMS}			700	Volts
DC blocking voltage		V _{DC}			1000	Volts
Average forward rectified current at T _c = 55°C (see Note 2)		I _{AV}			2.0	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)		I _{FSM}		50		A
Rating for Fusing (t<8.3ms)		I ² t		10		A ² S
Forward voltage drop per bridge element at 7.5A		V _F			1.0	Volts
DC reverse current at rated DC blocking voltage	TA=25°C	I _R			10	μA
	TA=100°C				0.5	mA
Thermal capacitance		C _J		15		pF
Thermal resistance (Note 3)		R _{QJA}		40		°C/W
Operating junction temperature range		T _J	-55		+125	
Storage temperature range		T _{STG}	-55		+150	°C

Note

1. Ratings at 25 C ambient temperature unless otherwise specified. Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.
2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
3. Device mounted on 0.22"×0.22" (5.5×5.5mm) cooper pads, 0.375"(9.5mm) lead length.
4. The typical data above is for reference only

THRU HOLE BRIDGE RECTIFIER WOM SERIES**RELIABILITY**

Number	Experiment Items	Experiment Method And Conditions	Reference Documents
1	Solder Resistance Test	Test $260^{\circ}\text{C} \pm 5^{\circ}\text{C}$ for 10 ± 2 sec. Immerse body into solder $1/16'' \pm 1/32''$	MIL-STD-750D METHOD-2031.2
2	Solderability Test	$230^{\circ}\text{C} \pm 5^{\circ}\text{C}$ for 5 sec.	MIL-STD-750D METHOD-2026.1 0
3	Pull Test	1 kg in axial lead direction for 10 sec.	MIL-STD-750D METHOD-2036.4
4	Bend Test	0.5Kg Weight Applied To Each Lead, Bending Arcs $90^{\circ} \pm 5^{\circ}\text{C}$ For 3 Times	MIL-STD-750D METHOD-2036.4
5	High Temperature Reverse Bias Test	$T_A=100^{\circ}\text{C}$ for 1000 Hours at $V_R=80\%$ Rated V_R	MIL-STD-750D METHOD-1038.4
6	Forward Operation Life Test	$T_A=25^{\circ}\text{C}$ Rated Average Rectified Current	MIL-STD-750D METHOD-1027.3
7	Intermittent Operation Life Test	On state: 5 min with rated IRMS Power Off state: 5 min with Cool Forced Air. On and off for 1000 cycles.	MIL-STD-750D METHOD-1036.3
8	Pressure Cooker Test	15 PSIG, $T_A=121^{\circ}\text{C}$, 4 hours	MIL-S-19500 APPENIOXC
9	Temperature Cycling Test	$-55^{\circ}\text{C} \sim +125^{\circ}\text{C}$; 30 Minutes For Dwelled Time 5 minutes for transferred time. Total: 10 cycles.	MIL-STD-750D METHOD-1051.7
10	Thermal Shock Test	0°C for 5 minutes., 100°C for 5minutes, Total: 10 cycles	MIL-STD-750D METHOD-1056.7
11	Forward Surge Test	8.3ms Single Sale Sine-wave One Surge.	MIL-STD-750D METHOD-4066.4
12	Humidity Test	$T_A=65^{\circ}\text{C}$, RH=98% for 1000 hours.	MIL-STD-750D METHOD-1021.3
13	High Temperature Storage life Test	150°C for 1000 Hours	MIL-STD-750D METHOD-1031.5

THRU HOLE BRIDGE RECTIFIER WOM SERIES**RATINGS AND CHARACTERISTIC CURVES (For Reference Only)**AVERAGE FORWARD RECTIFIED CURRENT,
AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE

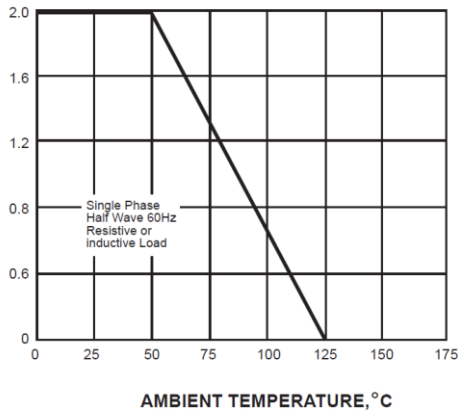
PEAK FORWARD SURGE CURRENT,
AMPERES

FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

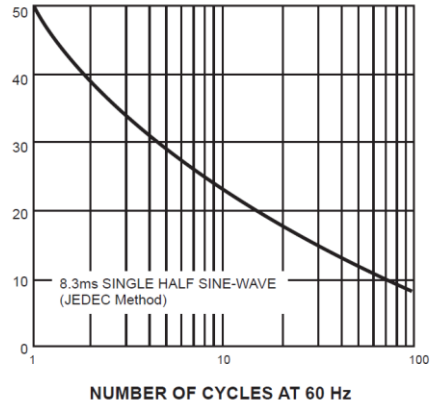
INSTANTANEOUS FORWARD
CURRENT, AMPERES

FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

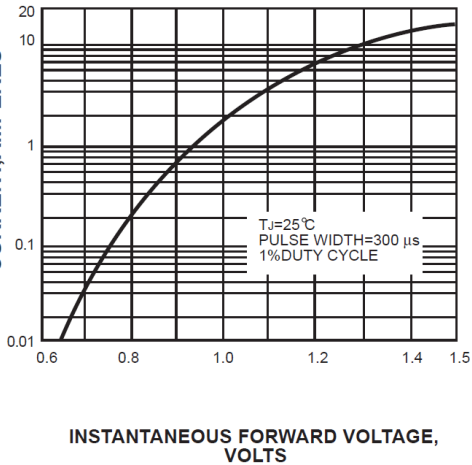
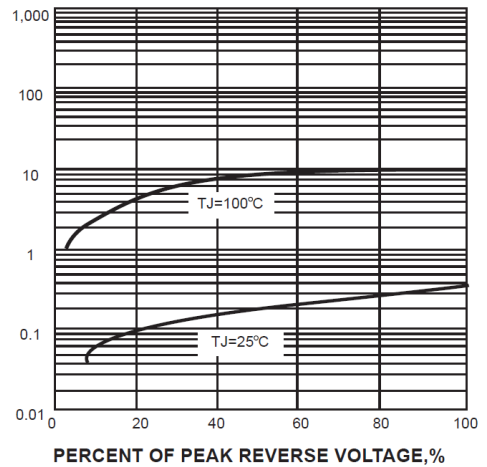
INSTANTANEOUS REVERSE CURRENT,
MICROAMPERES

FIG. 4-TYPICAL REVERSE CHARACTERISTICS



JUNCTION CAPACITANCE, pF

FIG. 5-TYPICAL JUNCTION CAPACITANCE

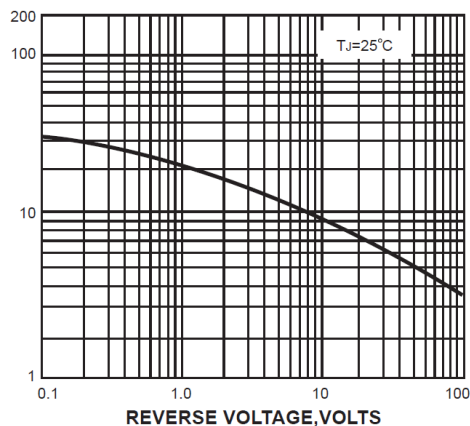
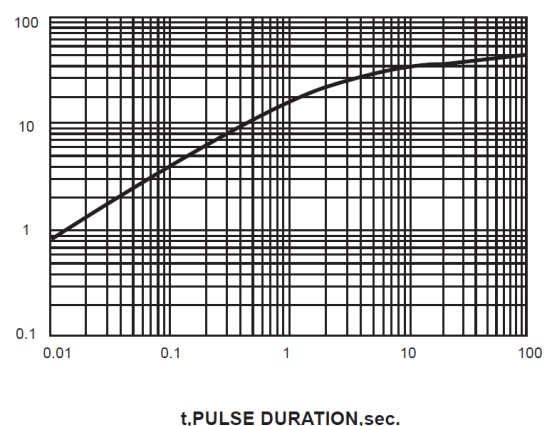
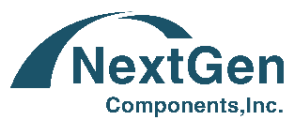
TRANSIENT THERMAL IMPEDANCE,
°C/W

FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE





PART CODE: **WOM2W10000L20A**

THRU HOLE BRIDGE RECTIFER WOM SERIES

PACKAGE

Part Type	Qty. Per Box (pcs)	G.W per box (kg)	Inner Box L*W*H (mm)	Carton size L*W*H (mm)	Qty. Per Carton (pcs)	G. W (kg)
WOM	1000	1.00	260*190*70	400*270*370	10,000	10.85

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