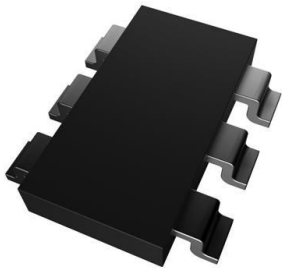


MMBD4448HSDW-TP Datasheet

www.digi-electronics.com



<https://www.DiGi-Electronics.com>

DiGi Electronics Part Number	MMBD4448HSDW-TP-DG
Manufacturer	Micro Commercial Co
Manufacturer Product Number	MMBD4448HSDW-TP
Description	DIODE ARRAY GP 80V 250MA SOT363
Detailed Description	Diode Array 2 Pair Series Connection 80 V 250mA Surface Mount 6-TSSOP, SC-88, SOT-363

This model MMBD4448HSDW-TP is available at DiGi Electronics.

DiGi Electronics offers a global database of semiconductor and electronic component datasheets.

We welcome your inquiries regarding pricing, lead time, or other product-related questions.

 [Request a Quote](#)

 [Datasheet Search](#)



Tel: +00 852-30501935

RFQ Email: Info@DiGi-Electronics.com

DiGi is a global authorized distributor of electronic components.

Purchase and inquiry

Manufacturer Product Number:

MMBD4448HSDW-TP

Series:

-

Diode Configuration:

2 Pair Series Connection

Voltage - DC Reverse (Vr) (Max):

80 V

Voltage - Forward (Vf) (Max) @ If:

1.25 V @ 150 mA

Reverse Recovery Time (trr):

4 ns

Operating Temperature - Junction:

150°C (Max)

Package / Case:

6-TSSOP, SC-88, SOT-363

Base Product Number:

MMBD4448

Manufacturer:

Micro Commercial Co

Product Status:

Active

Technology:

Standard

Current - Average Rectified (Io) (per Diode):

250mA

Speed:

Fast Recovery =< 500ns, > 200mA (Io)

Current - Reverse Leakage @ Vr:

100 nA @ 70 V

Mounting Type:

Surface Mount

Supplier Device Package:

SOT-363

Environmental & Export classification

RoHS Status:

ROHS3 Compliant

REACH Status:

REACH Unaffected

HTSUS:

8541.10.0070

Moisture Sensitivity Level (MSL):

1 (Unlimited)

ECCN:

EAR99

Features

- Fast Switching Speed
- Ultra-Small Surface Mount Package
- High Conductance, Power Dissipation
- For General Purpose Switching Applications
- Halogen Free. "Green" Device (Note 1)
- Moisture Sensitivity Level 1
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant. See Ordering Information)

Maximum Ratings

- Operating Junction Temperature Range: 150°C
- Storage Temperature Range: -65°C to +150°C
- Thermal Resistance: 625°C/W Junction to Ambient

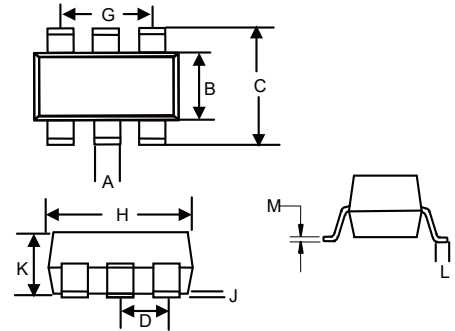
MCC Part Number	Device Marking	Repetitive Peak Reverse Voltage V_{RRM}	RMS Reverse Voltage $V_{R(RMS)}$	DC Blocking Voltage V_R
MMBD4448HAQW	KA5	80V	57V	80V
MMBD4448HADW	KA6	80V	57V	80V
MMBD4448HCDW	KA7	80V	57V	80V
MMBD4448HSDW	KAB	80V	57V	80V
MMBD4448HCQW	KA4	80V	57V	80V
MMBD4448HTW	KAA	80V	57V	80V

Non-Repetitive Peak Reverse Voltage	V_{RM}	100V	
Working Peak Reverse Voltage	V_{RWM}	80V	
Forward Continuous Current	I_{FM}	500mA	
Average Rectified Output Current	I_o	250mA	
Non-Repetitive Peak Forward Surge Current	I_{FSM}	4.0A 1.5A	@ $t=1.0\mu s$ @ $t=1.0s$
Power Dissipation	P_D	200mW	

Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

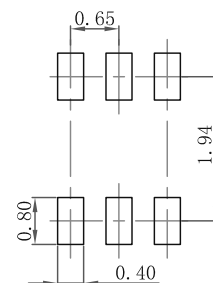
200mW Switching Diodes

SOT-363



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.006	0.014	0.15	0.35	
B	0.045	0.053	1.15	1.35	
C	0.079	0.096	2.00	2.45	
D	0.026		0.65 Nominal		
G	0.047	0.055	1.20	1.40	
H	0.071	0.087	1.80	2.20	
J	-----	0.004	-----	0.10	
K	0.031	0.043	0.80	1.10	
L	0.010	0.018	0.26	0.46	
M	0.003	0.006	0.08	0.15	

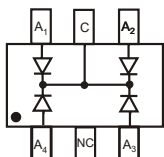
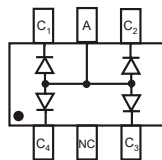
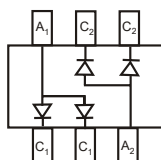
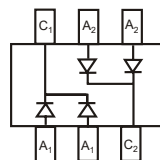
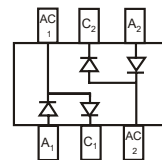
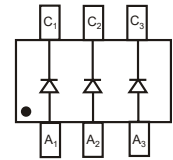
Suggested Solder Pad Layout



Electrical Characteristics @ 25°C Unless Otherwise Specified

Minimum Breakdown Voltage	V_{BR}	80V	$I_R=100\mu A$
Maximum Forward Voltage	V_F	0.720V 0.855V 1.000V 1.250V	$I_F=5.0mA$ $I_F=10.0mA$ $I_F=50.0mA$ $I_F=150.0mA$
Minimum Forward Voltage	V_F	0.620V	$I_F=5.0mA$
Maximum Peak Reverse voltage	I_R	25nA 100nA 30 μA 50 μA	$V_R=20V, T_J=25^\circ C$ $V_R=70V, T_J=25^\circ C$ $V_R=25V, T_J=150^\circ C$ $V_R=75V, T_J=150^\circ C$
Maximum Total Capacitance	C_T	3.5pF	$V_R=6.0V, f=1.0MHz$
Maximum Reverse Recovery Time	t_{rr}	4.0ns	$I_F=5mA, V_R=6V$

Internal Structure


 Marking: KA4
 MMBD4448HCQW

 Marking: KA5
 MMBD4448HAQW

 Marking: KA6
 MMBD4448HADW

 Marking: KA7
 MMBD4448HCDW

 Marking: KAB
 MMBD4448HSDW

 Marking: KAA
 MMBD4448HTW

Curve Characteristics

Fig. 1 - Typical Instantaneous Forward Characteristics

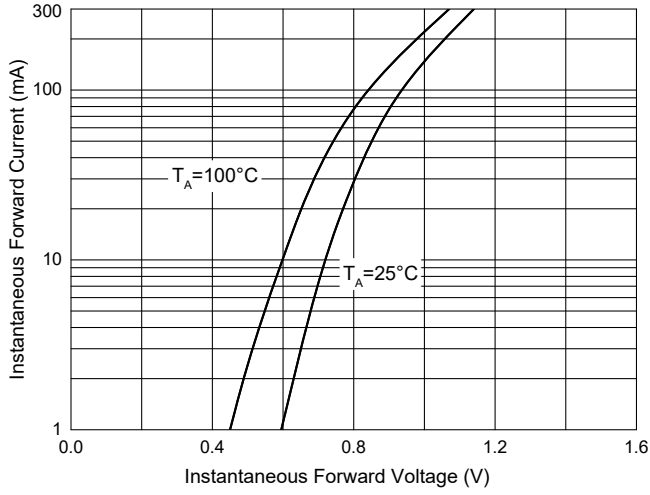


Fig. 2 - Typical Reverse Leakage Characteristics

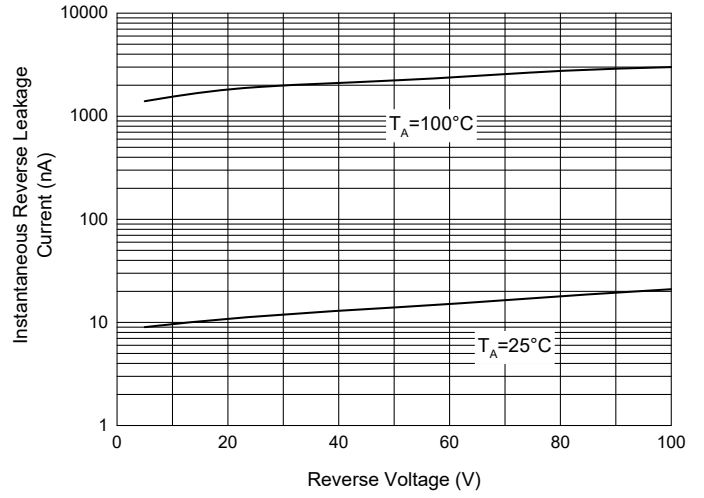
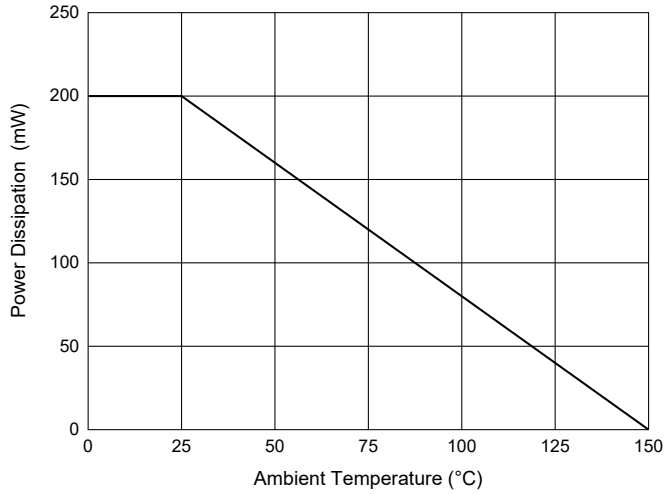


Fig. 3 - Power Derating Curve



Ordering Information

Device	Packing
Part Number-TP	Tape&Reel: 3Kpcs/Reel
Part Number-TPQ2	Tape&Reel: 3Kpcs/Reel

For packaging details, go to our website at <https://www.mccsemi.com/pdf/ProductPackaging/SOT-363%20Package.pdf>

IMPORTANT NOTICE

Micro Commercial Components Corp. reserves the right to make changes without further notice to any product herein to make corrections, modifications, enhancements, improvements, or other changes. **Micro Commercial Components Corp.** does not assume any liability arising out of the application or use of any product described herein; neither does it convey any license under its patent rights, nor the rights of others. The user of products in such applications shall assume all risks of such use and will agree to hold **Micro Commercial Components Corp.** and all the companies whose products are represented on our website, harmless against all damages. **Micro Commercial Components Corp.** products are sold subject to the general terms and conditions of commercial sale, as published at <https://www.mccsemi.com/Home/TermsAndConditions>.

LIFE SUPPORT

MCC's products are not authorized for use as critical components in life support devices or systems without the express written approval of Micro Commercial Components Corporation.

CUSTOMER AWARENESS

Counterfeiting of semiconductor parts is a growing problem in the industry. Micro Commercial Components (MCC) is taking strong measures to protect ourselves and our customers from the proliferation of counterfeit parts. MCC strongly encourages customers to purchase MCC parts either directly from MCC or from Authorized MCC Distributors who are listed by country on our web page cited below. Products customers buy either from MCC directly or from Authorized MCC Distributors are genuine parts, have full traceability, meet MCC's quality standards for handling and storage. **MCC will not provide any warranty coverage or other assistance for parts bought from Unauthorized Sources.** MCC is committed to combat this global problem and encourage our customers to do their part in stopping this practice by buying direct or from authorized distributors.

OUR CERTIFICATE

DiGi provide top-quality products and perfect service for customer worldwide through standardization, technological innovation and continuous improvement. DiGi through third-party certification, we stricly control the quality of products and services. Welcome your RFQ to Email: Info@DiGi-Electronics.com



Tel: +00 852-30501935

RFQ Email: Info@DiGi-Electronics.com

DiGi is a global authorized distributor of electronic components.