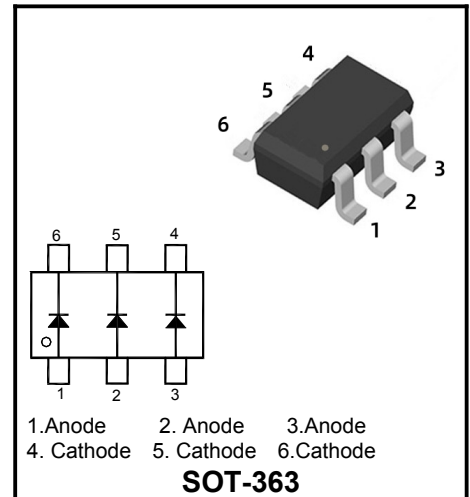


Silicon Epitaxial Planar Switching Diode

Features

- Fast switching speed
- Ultra-small surface mount package
- For general purpose switching applications
- High conductance

Marking Code	
MMBD4148DW	KA2



Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Value	Unit
Peak Reverse Voltage	V_{RM}	100	V
Reverse Voltage	V_R	75	V
Average Rectified Forward Current	$I_{F(AV)}$	200	mA
Forward Continuous Current	I_{FM}	300	mA
Non-Repetitive Peak Forward Current	I_{FSM}	2 1	A
		$t = 1 \mu s$ $t = 1 s$	
Power Dissipation	P_{tot}	200	mW
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	625	°C/W
Operating and Storage Temperature Range	T_j, T_{stg}	- 65 to + 150	°C

Characteristics (Ta=25°C unless otherwise specified.)

Parameter	Symbol	Min.	Max.	Unit
Reverse Breakdown Voltage at $I_R = 100 \mu A$	$V_{(BR)R}$	75	-	V
Forward Voltage at $I_F = 1 mA$ at $I_F = 10 mA$ at $I_F = 50 mA$ at $I_F = 150 mA$	V_F	- - - -	0.715 0.855 1 1.25	V
Peak Reverse Current at $V_R = 20 V$ at $V_R = 75 V$ at $V_R = 25 V, T_j = 150^\circ C$ at $V_R = 75 V, T_j = 150^\circ C$	I_R	- - - -	25 1 30 50	nA μA μA μA
Total Capacitance at $V_R = 0 V, f = 1 MHz$	C_T	-	2	pF
Reverse Recovery Time at $I_F = I_R = 10 mA, I_{rr} = 0.1 \times I_R, R_L = 100 \Omega$	t_{rr}	-	4	ns

Typical Characteristics

Power Dissipation vs Ambient Temperature

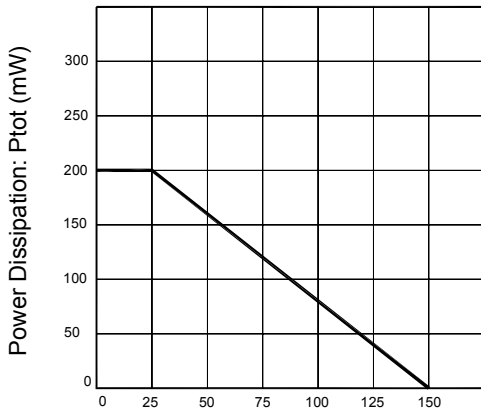


Fig.1 Ambient Temperature: Ta (C)

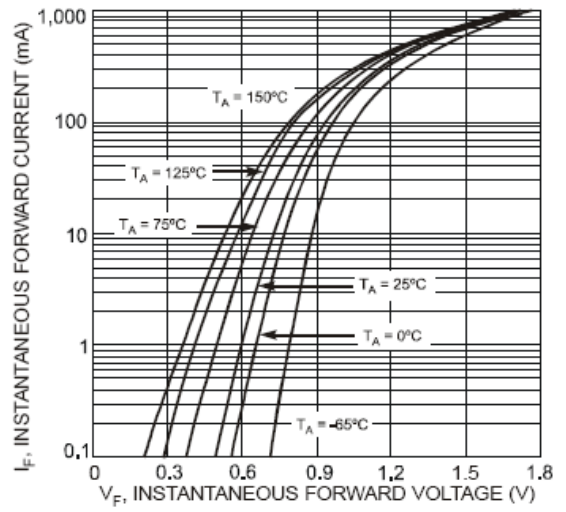


Fig. 2 Typical Forward Characteristics

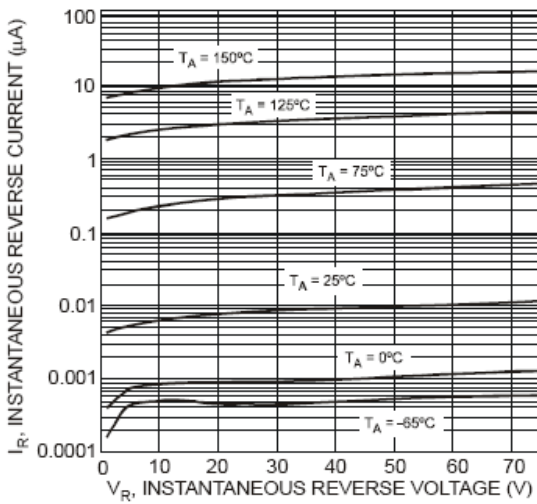


Fig. 3 Typical Reverse Characteristics

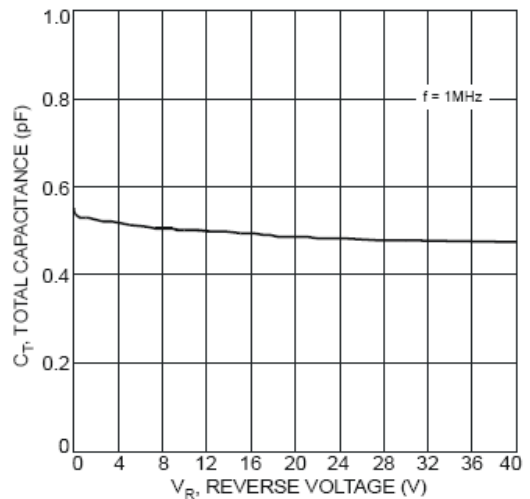


Fig. 4 Typical Total Capacitance

Ordering information

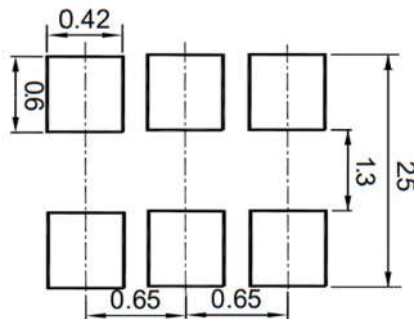
Package	Packing Description	Packing Quantity
SOT-363	Tape/Reel,7"reel	3000PCS/Reel 120000PCS/Carton

Package Dimensions

SOT-363

Dim.	Millimeter(mm)		mil	
	Min.	Max.	Min.	Max.
A	0.8	1.1	32	43
A1	-	0.1	-	3.94
bp	0.20	0.30	7.87	11.81
c	0.10	0.25	3.94	9.84
D	1.8	2.2	70.87	86.61
E	1.15	1.35	45.28	53.15
e	1.3		51.18	
e1	0.65		25.6	
HE	2.0	2.2	78.74	86.6
Lp	0.15	0.45	5.90	17.71
Q	0.15	0.25	5.90	9.84
v	0.2		7.78	
w	0.2		7.78	
y	0.1		3.94	

The recommended mounting pad size



Disclaimer

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