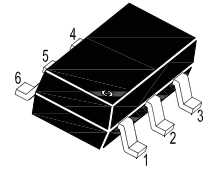
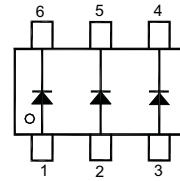


Silicon Epitaxial Planar Switching Diode

Features

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



1. Anode 2. Anode 3. Anode
4. Cathode 5. Cathode 6. Cathode

■ Simplified outline(SOT-363)
Marking:KA2

Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

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
	$t = 1 \mu\text{s}$ $t = 1 \text{s}$		
Power Dissipation	P_{tot}	200	mW
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	625	$^\circ\text{C/W}$
Operating and Storage Temperature Range	T_j, T_{stg}	- 65 to + 150	$^\circ\text{C}$

Characteristics at $T_a = 25^\circ\text{C}$

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

RATING AND CHARACTERISTICS CURVES (MMBD4148DW)

Power Dissipation vs Ambient Temperature

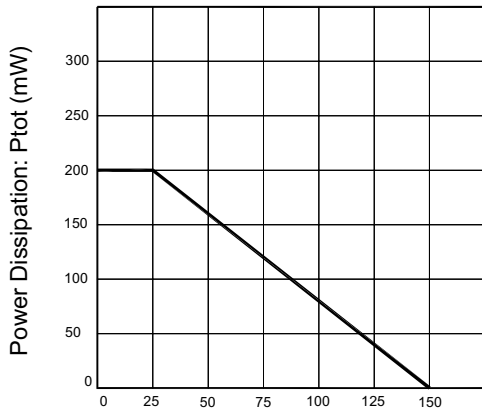


Fig.1 Ambient Temperature: T_A (C)

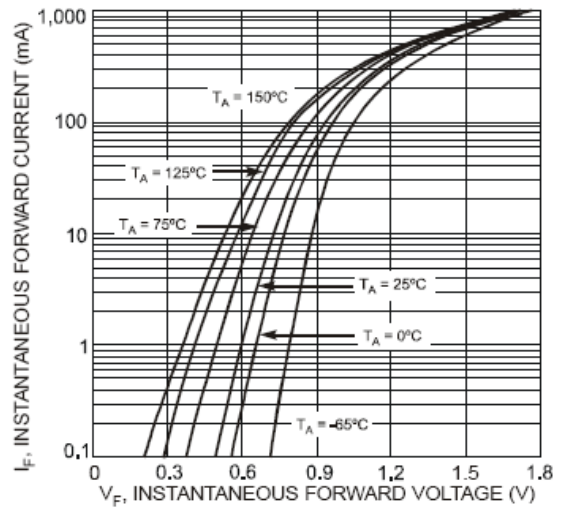


Fig. 2 Typical Forward Characteristics

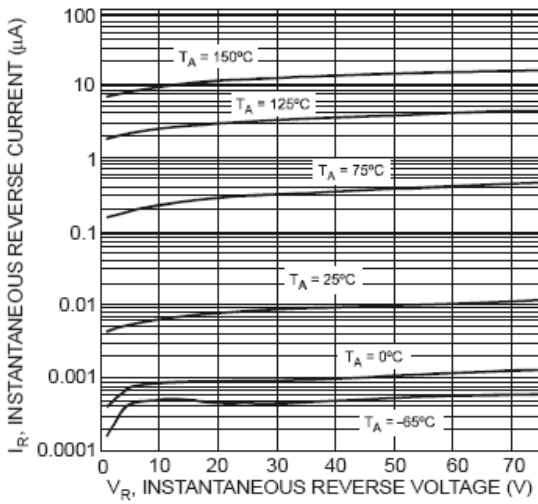


Fig. 3 Typical Reverse Characteristics

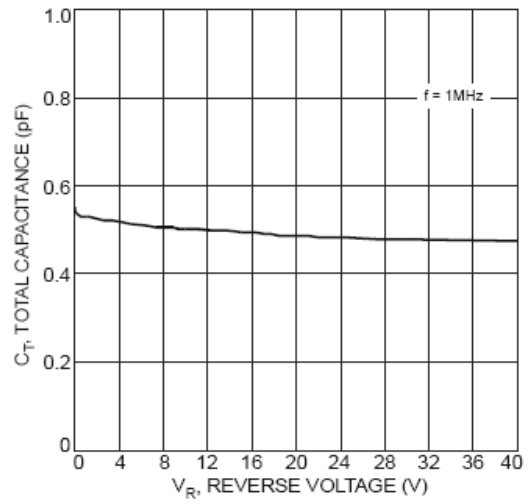
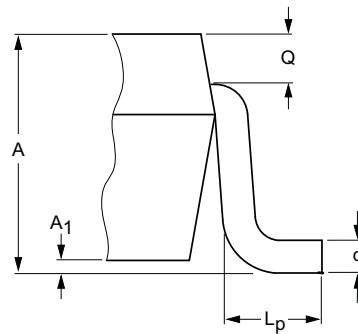
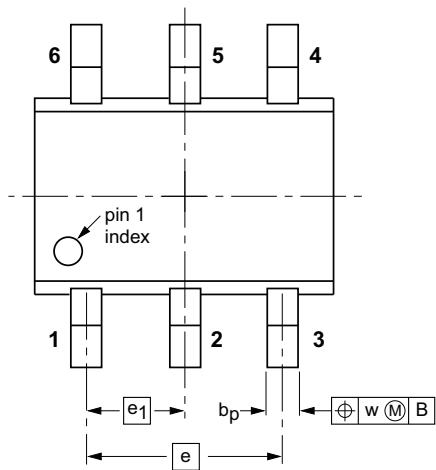
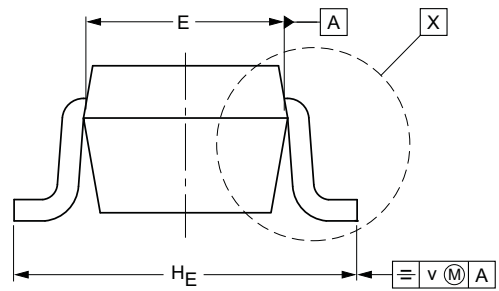
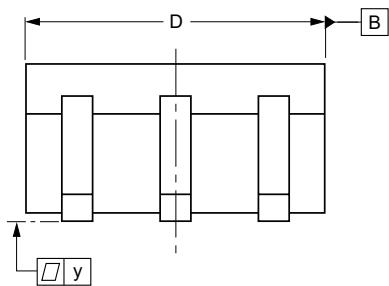
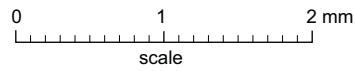


Fig. 4 Typical Total Capacitance

■ SOT-363



detail X



DIMENSIONS (mm are the original dimensions)

UNIT	A	A ₁ max	b _p	c	D	E	e	e ₁	H _E	L _p	Q	v	w	y
mm	1.1 0.8	0.1	0.30 0.20	0.25 0.10	2.2 1.8	1.35 1.15	1.3	0.65	2.2 2.0	0.45 0.15	0.25 0.15	0.2	0.2	0.1

(Packing spec):

PKG	tape	Reel	Box	pcs/reel	reel/box	pcs/box	box/carton	pcs/carton
SOT-363	IC-ZD-05	7" (IC-JP-05)	SOT363 包装箱	3000	10	30000	4	120000

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