

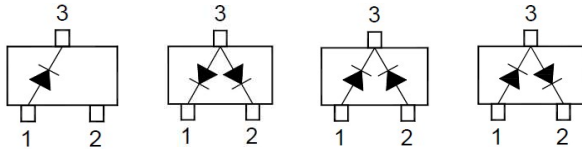


MMBD4148TH / ATH / CTH / STH

SWITCHING DIODES

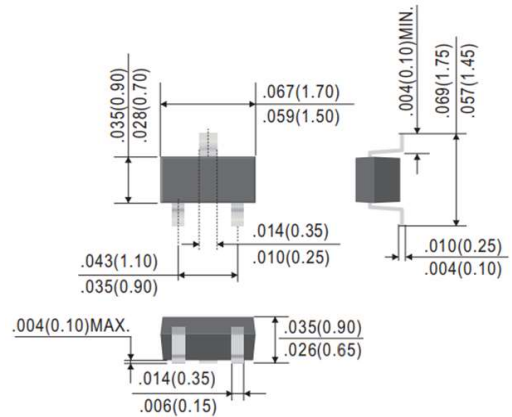
FEATURES

- For high-speed switching applications
- Suffix "H" indicates Halogen-free parts, ex. MMBD4148TH.



MMBD4148TH MMBD4148ATH MMBD4148CTH MMBD4148STH

SOT-523



Dimensions in inch (millimeter)

Maximum Ratings ($T_A = 25\text{ }^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Value	Unit	
Maximum Repetitive Reverse Voltage	V_{RRM}	100	V	
Reverse Voltage	V_R	75	V	
Average Rectified Forward Current	$I_{F(AV)}$	200	mA	
Non-repetitive Peak Forward Surge Current	I_{FSM}	at $t = 1\text{ s}$	1	A
		at $t = 1\text{ }\mu\text{s}$	2	
Total Power Dissipation	P_{tot}	150	mW	
Junction Temperature	T_J	150	$^\circ\text{C}$	
Storage Temperature Range	T_{stg}	-55 to +150	$^\circ\text{C}$	

Electrical Characteristics ($T_A = 25\text{ }^\circ\text{C}$ unless otherwise specified)

Parameter	Conditions	Symbol	Min	Max	Unit
Forward Voltage	$I_F = 10\text{ mA}$	V_F	-	1	V
Reverse Breakdown Voltage	$I_R = 100\text{ }\mu\text{A}$	$V_{BR(R)}$	100	-	V
	$I_R = 5\text{ }\mu\text{A}$		75	-	
Reverse Current	$V_R = 20\text{ V}$	I_R	-	25	nA
	$V_R = 75\text{ V}$		-	5	μA
	$V_R = 20\text{ V}, T_J = 150\text{ }^\circ\text{C}$		-	50	μA
Total Capacitance	$V_R = 0\text{ V}, f = 1\text{ MHz}$	C_d	-	4	pF
Reverse recovery time	$I_F = 10\text{ mA}, V_R = 6\text{ V}, I_{RR} = 1\text{ mA}, R_L = 100\text{ }\Omega$	T_{rr}	-	4	ns



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RATINGS AND CHARACTERISTIC CURVES

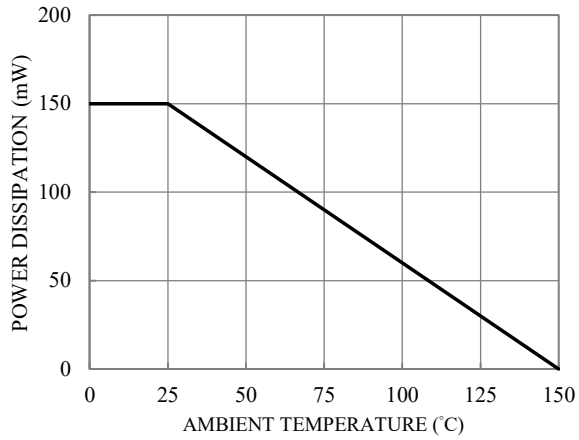


Fig.1-POWER DERATING CURVE

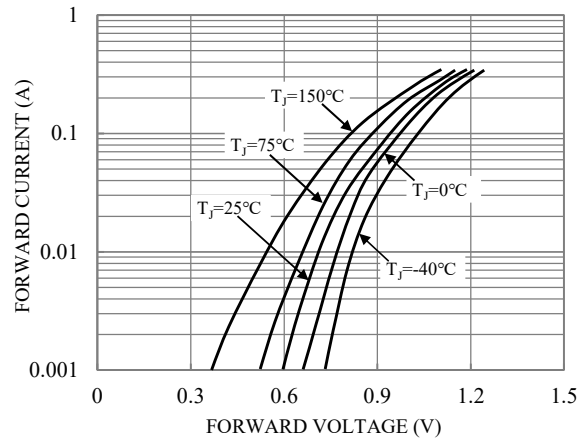


Fig.2-TYPICAL FORWARD CHARACTERISTICS

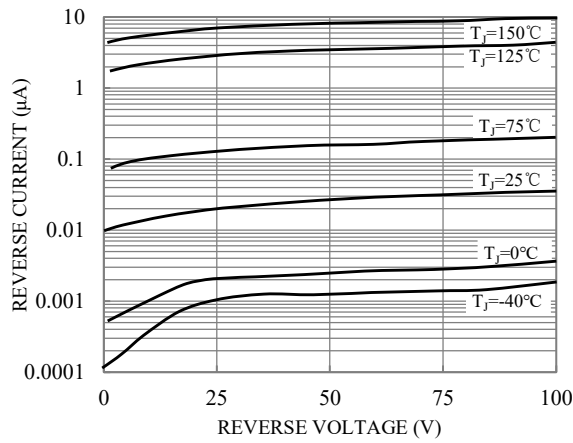


Fig.3-TYPICAL REVERSE CHARACTERISTICS

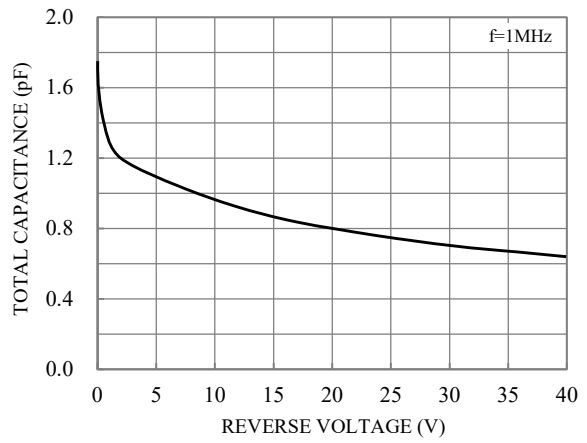


Fig.4-TOTAL CAPACITANCE vs. REVERSE VOLTAGE