



MMBD4148Q

High Speed Switching Diode

Features

Epoxy meets UL-94 V-0 flammability rating and halogen free
Moisture Sensitivity Level 1
 V_R 100V
 I_{FAV} 200mA
Part no. with suffix "Q" means AEC-Q101 qualified

Applications

Extreme fast switches
Automotive

Mechanical Data

Case: SOT-23

Terminals: Tin plated leads, solderable per
J-STD-002 and JESD22-B102

Polarity: Cathode line denote K

2

Maximum Ratings ($T_a=25$ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	CONDITIONS	VALUE
Reverse Voltage	V_R	V		100
Average Forward Current	I_{FAV}	mA		200
Repetitive Peak Forward Current	I_{FRM}	mA		300
Peak Forward Surge Current	I_{FSM}	A	Pulse width=1 us Pulse width=1 s	2 1
Power Dissipation	P_{tot}	mW		350
Thermal Resistance Junction to Ambient	R_{thJA}	K/W		357
Junction Temperature	T_j			-55 to +150

Storage Temperature Range



MMBD4148Q

Electrical Characteristics $T_a=25$ Unless otherwise specified

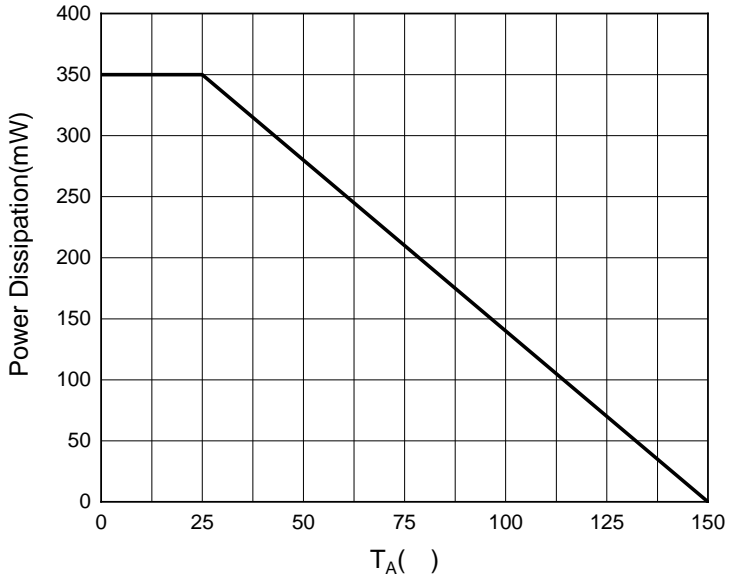
PARAMETER	SYMBOL	UNIT	CONDITIONS	MIN	MAX
Forward Voltage	V_F	V	$I_F=1\text{mA}$		0.715
			$I_F=10\text{mA}$		0.855
			$I_F=50\text{mA}$		1.0
			$I_F=100\text{mA}$		1.2
Reverse Current	I_R	nA	$V_R=20\text{V}$		25
		μA	$V_R=75\text{V}$		5
Breakdown Voltage	V_R	V	$I_R=100\mu\text{A}$	100	
Junction Capacitance	C_j	pF	$V_R=V_F=0\text{V}, f=1\text{MHz}$		4
Reverse Recovery Time	t_{rr}	ns	$I_F=10\text{mA}, I_{rr}=1\text{mA}, V_R=6\text{V}, R_L=100$		4

Ordering Information (Example)

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
MMBD4148Q	F2	Approximate 0.010	3000	30000	120000	7" reel



Fig.1: P_D-T_A





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