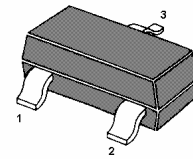
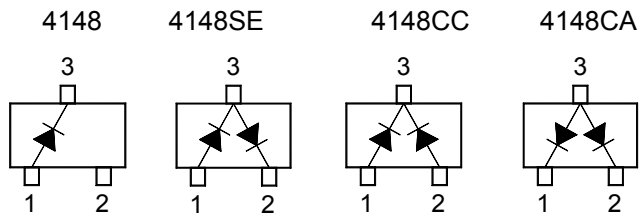


# MMBD4148 / SE / CC / CA

## HIGH CONDUCTANCE ULTRA FAST DIODES



SOT-23 Plastic Package

MMBD4148SE Marking Code: **26**

MMBD4148CC Marking Code: **27**

MMBD4148CA Marking Code: **28**

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

Parameter	Symbol	Value	Unit
Maximum Repetitive Reverse Voltage	$V_{RRM}$	100	V
Reverse Voltage	$V_R$	75	V
Average Rectified Current	$I_{F(AV)}$	200	mA
DC Forward Current	$I_{FM}$	600	mA
Recurrent Peak Forward Current	$I_{FRM}$	700	mA
Non-repetitive Peak Forward Surge Current	$I_{FSM}$	1	A
Pulse width = 1 s		2	A
Pulse width = 1 $\mu$ s			
Total Device Dissipation	$P_{tot}$	350	mW
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	357	$^\circ\text{C/W}$
Operating Junction Temperature	$T_J$	150	$^\circ\text{C}$
Storage Temperature Range	$T_S$	-55 to +150	$^\circ\text{C}$

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

Parameter	Symbol	Min.	Max.	Unit
Breakdown Voltage at $I_R = 100\text{ }\mu\text{A}$ at $I_R = 5\text{ }\mu\text{A}$	$V_R$	100	-	V
	$V_R$	75	-	V
Forward Voltage at $I_F = 10\text{ mA}$	$V_F$	-	1	V
Reverse Current at $V_R = 20\text{ V}$ at $V_R = 20\text{ V}$ , $T_A = 150\text{ }^\circ\text{C}$ at $V_R = 75\text{ V}$	$I_R$	-	25	nA
		-	50	$\mu\text{A}$
		-	5	$\mu\text{A}$
Reverse Recovery Time at $I_F = 10\text{ mA}$ , $V_R = 6\text{ V}$ , $I_{RR} = 1\text{ mA}$ , $R_L = 100\text{ }\Omega$	$t_{rr}$	-	4	ns
Total Capacitance at $V_R = 0\text{ V}$ , $f = 1\text{ MHz}$	$C_T$	-	4	pF

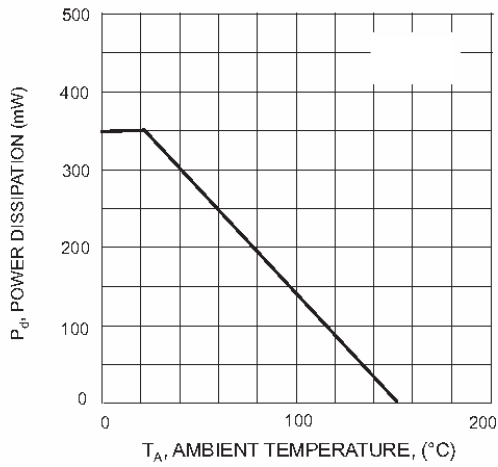


Fig. 1 Power Derating Curve

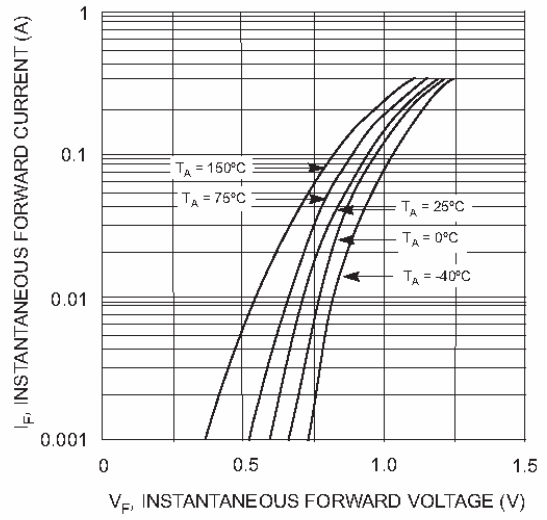


Fig. 2 Forward Characteristics

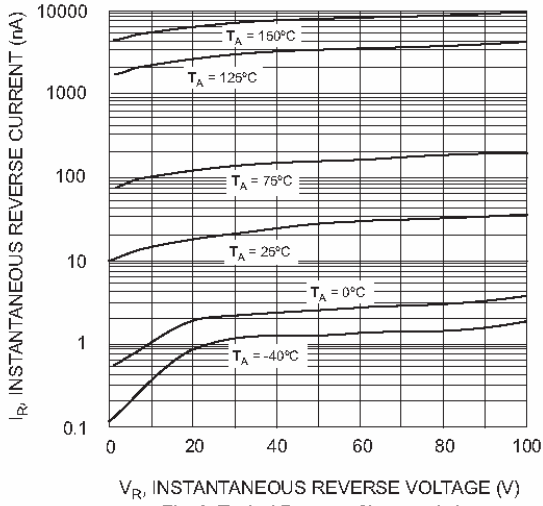


Fig. 3 Typical Reverse Characteristics

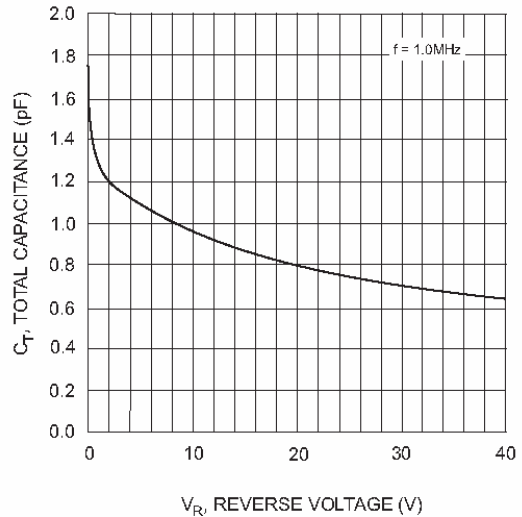


Fig. 4 Typical Capacitance vs. Reverse Voltage