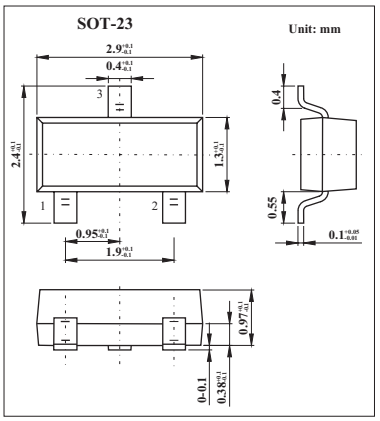
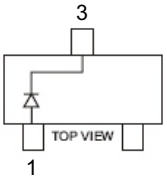
Surface Mount Fast Switching Diode

KMBD4148



■ Features

- ●Fast Switching Speed
- ●For General Purpose Switching Applications
- ● High Conductance



■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Non-Repetitive Peak Reverse Voltage	V_{RM}	100	V
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	75	V
RMS Reverse Voltage	$V_{R(RMS)}$	53	V
Forward Continuous Current (Note 1)	I_{FM}	300	mA
Average Rectified Output Current (Note 1)	I_O	200	mA
Non-Repetitive Peak Forward Surge Current @ t = 1.0μs @ t = 1.0s	I_{FSM}	2 1	A
Power Dissipation (Note 1)	P_D	350	mW
Thermal Resistance Junction to Ambient Air (Note 1)	$R_{\theta JA}$	357	°C/W
Operating and Storage Temperature Range	T_j , T_{STG}	-65 to +150	°C

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Breakdown Voltage	V_R	I_R = 100 μA	75			V
Forward Voltage	V_F	I_F = 1.0mA I_F = 10mA I_F = 50mA I_F = 150mA			0.715 0.855 1.0 1.25	V
Reverse Current	I_R	V_R = 75V V_R = 75V, T_j = 150°C V_R = 25V, T_j = 150°C			1.0 50 30	μA μA μA
Total Capacitance	C_T	V_R = 0, f = 1.0MHz			2.0	pF
Reverse Recovery Time	t_{rr}	I_F = I_R = 10mA, I_{rr} = 0.1 x I_R, R_L = 100 Ω			4.0	ns

Note 1. Device mounted on fiberglass substrate 40 x 40 x 1.5mm.

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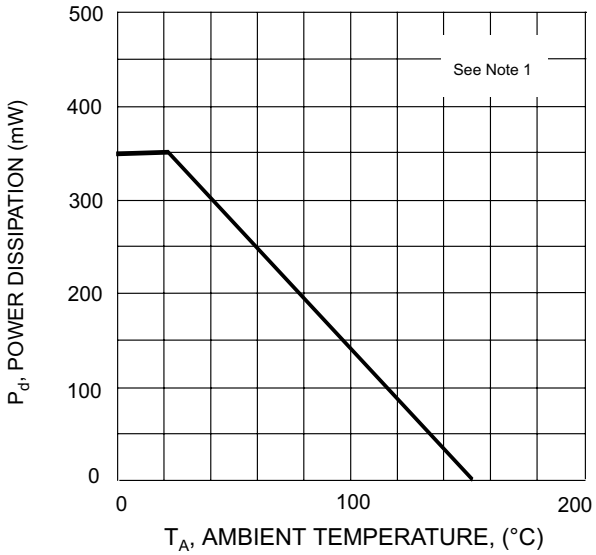

Fig. 1 Power Derating Curve

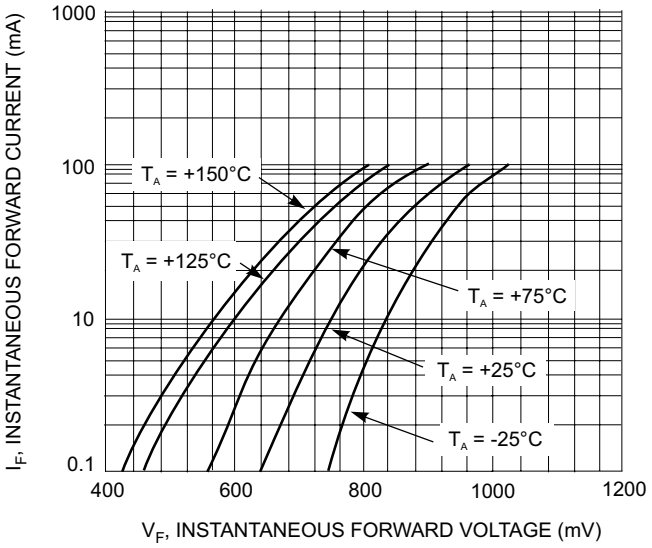

Fig. 2, Typical Forward Characteristics

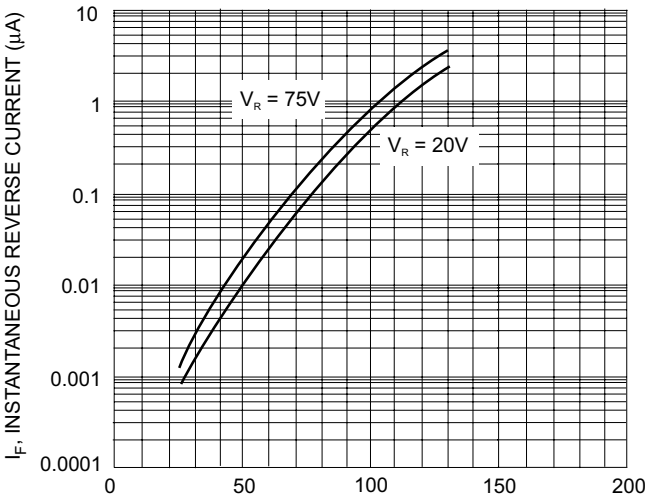

Fig. 3, Typical Reverse Characteristics