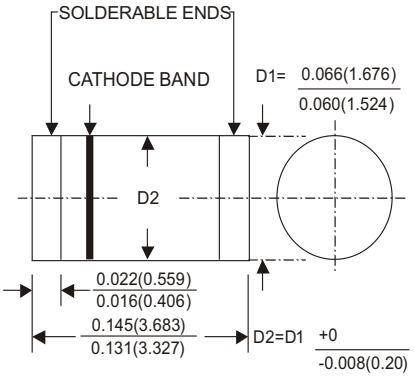
MM4148

SURFACE MOUNT SWITCHING DIODES

DO-213AA / MINI MELF



Dimension in inches (millimeters)

ABSOLUTE MAXIMUM RATINGS

	SYMBOL	VALUE	UNITS
Reverse Voltage	V_R	75	V
Peak Reverse Voltage	V_{RM}	100	V
Rectified Current (Average) Half Wave Rectification with Resist Load at $T_{amb}=25^0C$ and f≧50Hz	I_O	150	mA
Surge Forward Current at t<1s and $T_J=25^0C$	I_{FSM}	500	mA
Power Dissipation at $T_{amb}=25^0C$	P_{tot}	500	mW
Junction Temperature	T_J	200	^0C
Storage Temperature Range	T_S	-65 to +200	^0C

Cases：Mini Melf Molded Glass for MM4148
& Quadro Melf Molded Glass for LS4148
& Micro Melf Molded Glass for MCL4148

CHARACTERISTICS at $T_J=25^0C$

	SYMBOL	Min	Typ	Max	UNITS
Forward Voltage at $I_F=10mA$	V_F	–	–	1	V
Leakage Current at $V_R=20V$ at $V_R=75V$ at $V_R=20V$, $T_J=150^0C$	 T_R I_R I_R	–	–	 25 5 50	 nA μA μA
Reverse Breakdown Voltage tested with 100μS Pulses	$V_{(BR)R}$	100	–	–	V
Capacitance at $V_F=V_R=0$	C_{tot}	–	–	4	pF
Voltage Rise when Switching On Tested with 50mA Forward Pulses $T_P=0.1\mu s$, Rise Time<30ns, fp = 5~100KHz	V_{fr}	–	–	2.5	V
Reverse Recovery Time From $I_F=-I_R=10mA$ to $I_{RR}=-1mA$, $V_R=6V$ $R_L=100\Omega$	T_{RR}	–	–	4	nS
Thermal Resistance Function to Ambitent Air	R_{thA}	–	–	0.35	K / mW
Rectification Efficiency at f = 100MHz, $V_{RF}=2V$	ηv	0.45	–	–	–

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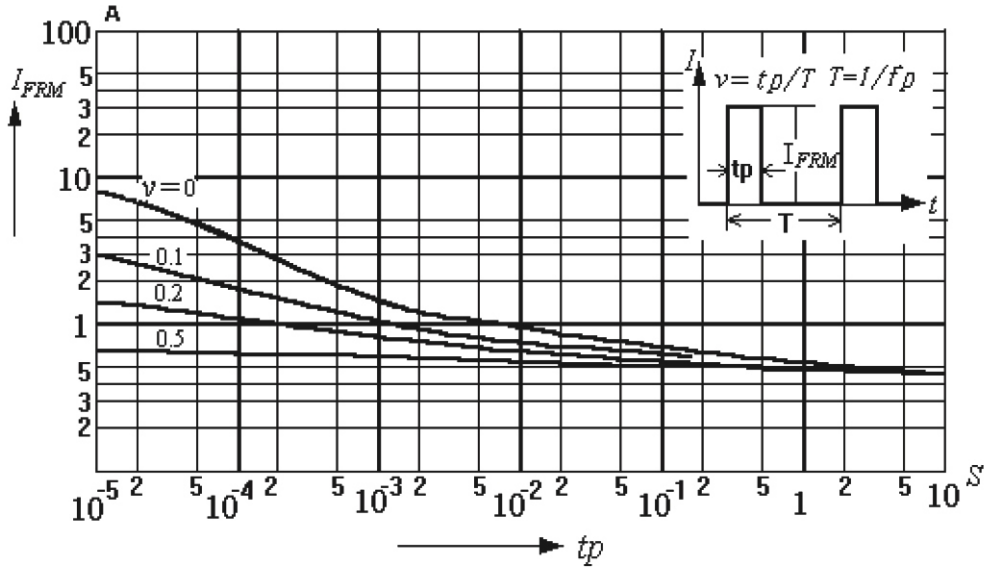
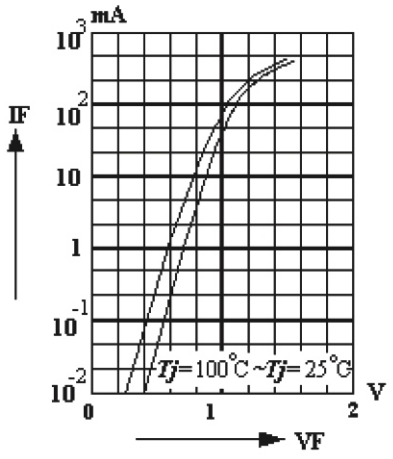
RATING AND CHARACTERISTICS CURVES MM4148

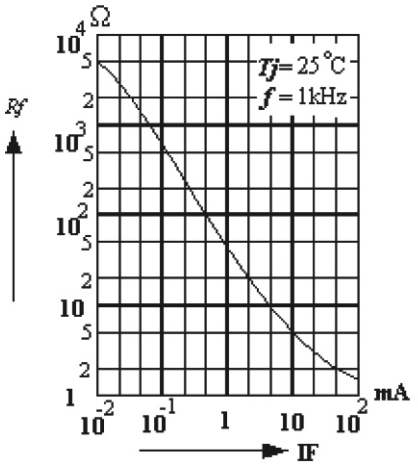
Admissible repetitive peak forward current versus pulse duration



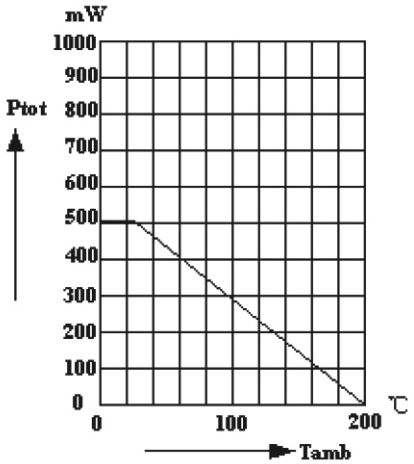
Forward characteristics



Dynamic forward resistance versus forward current



Admissible power dissipation versus ambient temperature



Relative capacitance versus reverse voltage