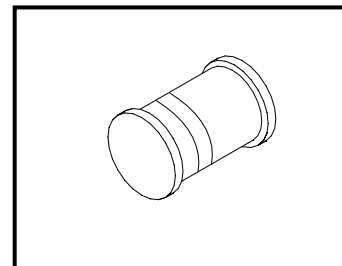


SURFACE MOUNT SWITCHING DIODE

MM4148SM



Description

The MM4148SM is designed for high-speed switching application in hybrid thick-and thin-film circuits.

Absolute Maximum Ratings

(Operating temperature range applies unless otherwise specified)

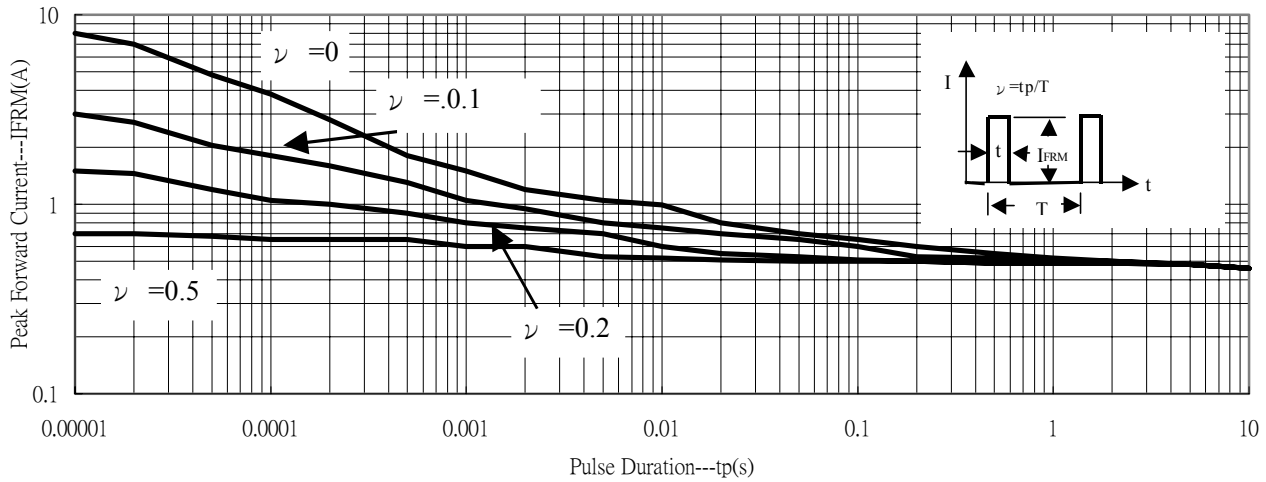
Characteristics	Symbol	Value	Unit
Reverse Voltage	V_R	75	V
Peak Reverse Voltage	V_{RM}	100	V
Rectified Current(Average) Half Wave Rectification with Resistive Load at $T_{amb}=25^{\circ}C$ and $f \geq 50Hz$	I_O	150	mA
Surge Forward Current at $t < 1s$ and $T_j = 25^{\circ}C$	I_{FSM}	500	mA
Power Dissipation at $T_{amb}=25^{\circ}C$	P_{tot}	500	mW
Junction Temperature	T_j	200	$^{\circ}C$
Storage Temperature Range	T_s	-65 to +200	$^{\circ}C$

Characteristics ($T_j=25^{\circ}C$)

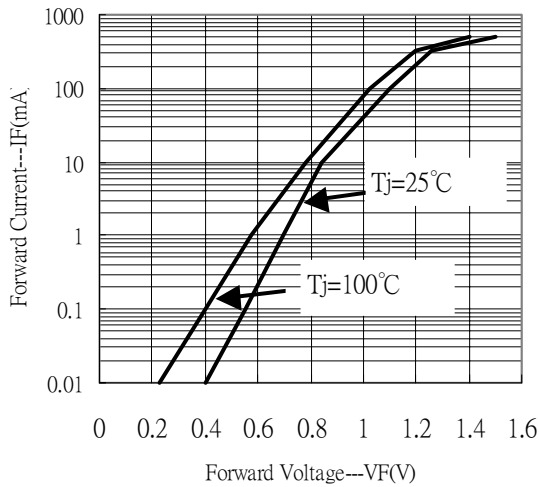
Characteristics	Symbol	Min	Typ	Max	Unit
Forward Voltage at $I_F=10mA$	V_F	-	-	1	V
Leakage Current $V_R=20V$ $V_R=75V$ $V_R=20V, T_j=150^{\circ}C$	I_R	-	-	25	nA
		-	-	5	uA
		-	-	50	uA
Reverse Breakdown Voltage tested with 100us Pulses	$V_{(BR)R}$	100	-	-	V
Capacitance at $V_F = V_R = 0$	C_{tot}	-	-	4	pF
Voltage Rise when Switching On Tested with 50mA Forward Pulses $T_p=0.1us$, Rise Time<30ns, $f_p=5\sim 100kHz$	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, Junction to Ambient Air	$R_{th JA}$	-	-	350	$^{\circ}C/W$
Rectification Efficiency at $f=100MHz$, $V_{RF}=2V$	η_v	0.45	-	-	-

Characteristic Curves

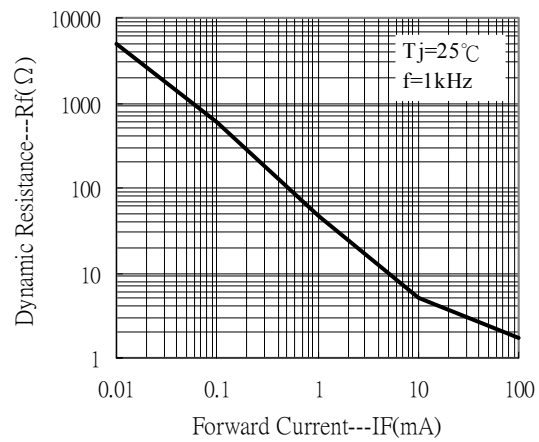
Admissible Repetitive Peak Forward Current vs Pulse Duration



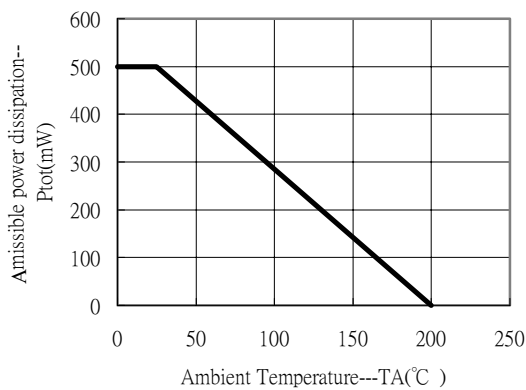
Forward Current vs Forward Voltage



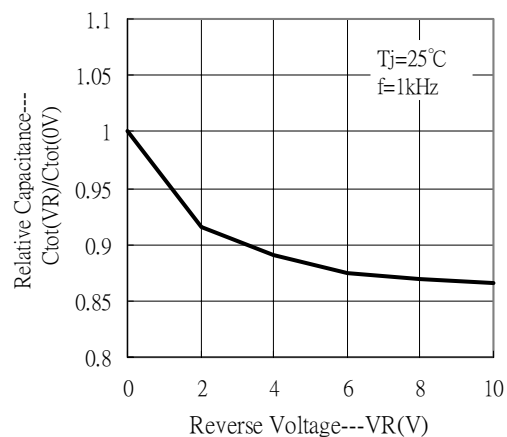
Dynamic Forward Resistance vs Forward Current



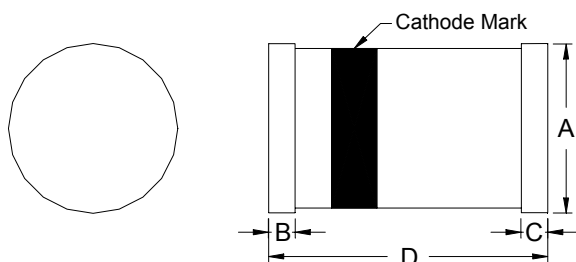
Admissible Power Dissipation vs Ambient Temperature



Relative Capacitance vs Reverse Voltage



Mini-melf(SOD-80C) Dimension



LL-34
 Mini-Melf
 SOD-80C
 CYStek package code:SM

*:Typical

DIM	Inches		Millimeters		DIM	Inches		Millimeters	
	Min.	Max.	Min.	Max.		Min.	Max.	Min.	Max.
A	0.0512	0.0591	1.30	1.50	C	0.0118	0.0197	0.30	0.50
B	0.0118	0.0197	0.30	0.50	D	0.1260	0.1417	3.2	3.6

Notes : 1.Controlling dimension : millimeters.

2.Maximum lead thickness includes lead finish thickness, and minimum lead thickness is the minimum thickness of base material.

3.If there is any question with packing specification or packing method, please contact your local CYStek sales office.

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