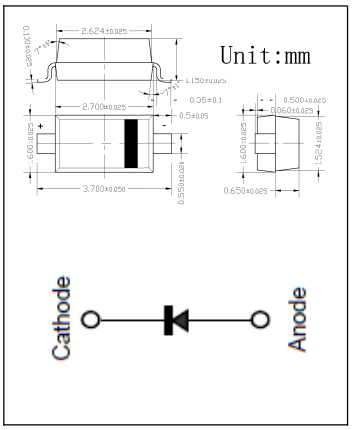
SOD-123 Plastic-Encapsulate Diode

RF071MM2S

Super Fast Recovery Diode



Features

- Ultra low forward voltage
- Low switching loss

Application

- General rectification

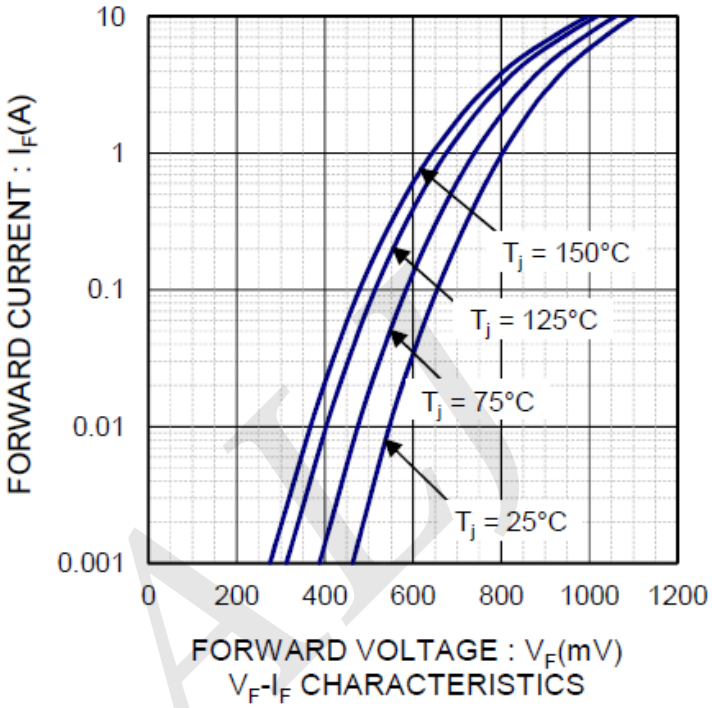
Maximum Ratings (T_a=25°C unless otherwise specified)

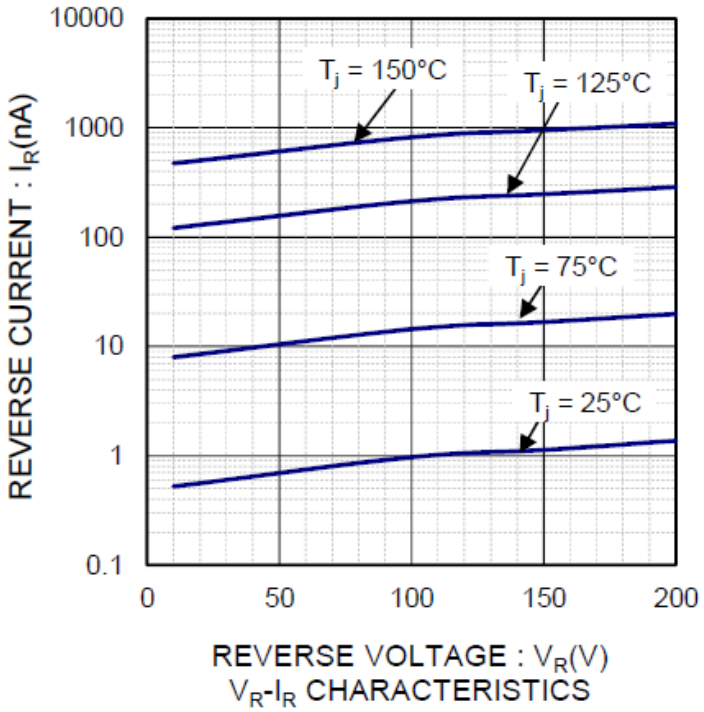
Symbol	Parameter	Value	Unit
V_{DS}	Drain-Source voltage	200	V
V_R	Reverse voltage	200	V
I_F	Direct forward current	1	A
I_O	Average rectified foward current	0.7	A
I_{FSM}	Non-repetitive forward surge current	15	A
T_J	Junction Temperature(MAX)	150	°C
T_{STG}	Storage Temperature	-55 to +150	°C

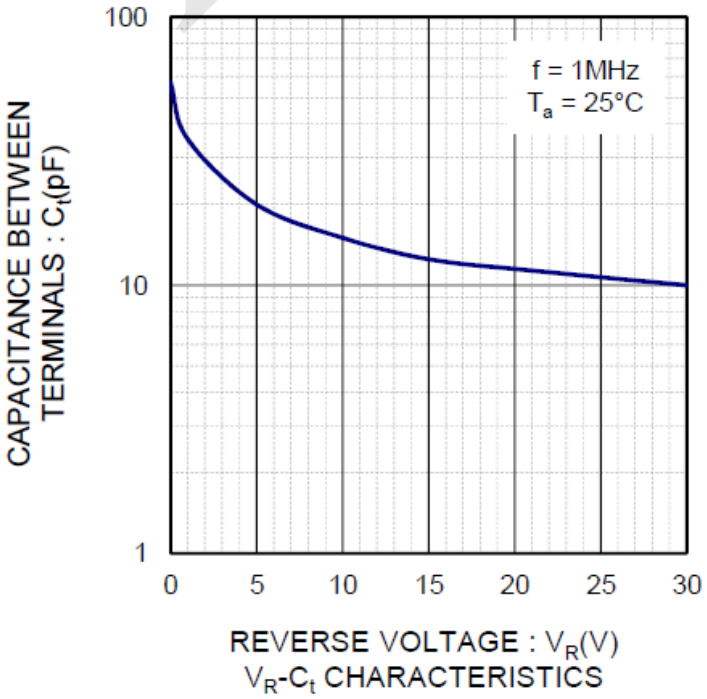
Electrical Characteristics (T_J=25°C unless otherwise specified)

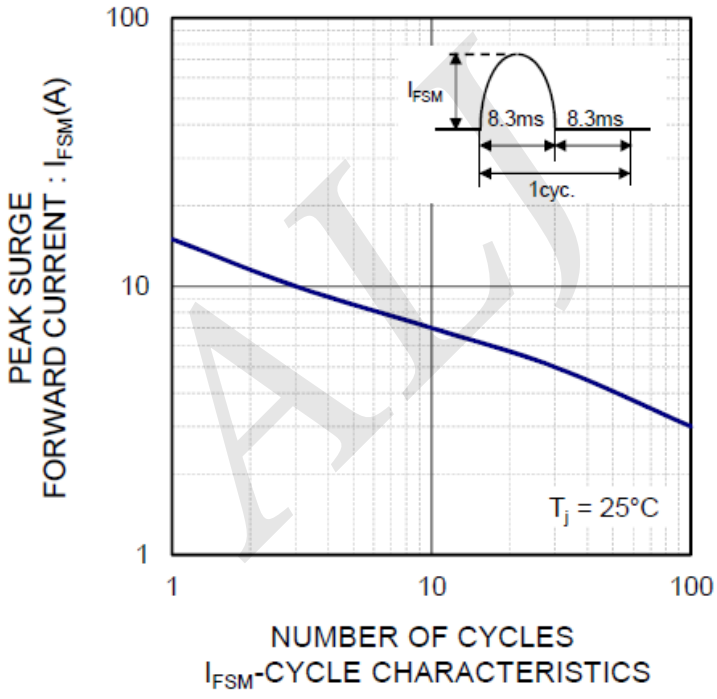
Symbol	Parameter	Test Conditions	Min	Typ	Max	Unit
V_F	Forward voltage	I_F=0.7A	0.7	0.78	0.85	V
I_R	Reverse current	V_R=200V		0.01	10	μA
t_{rr}	Reverse recovery time	I_F=0.5A, I_R=1A, I_{rr}=0.25×I_R		12	25	nS
$R_{th(j-l)}$	Thermal resistance	Junction to lead			20	°C/ W

Typical Characteristics

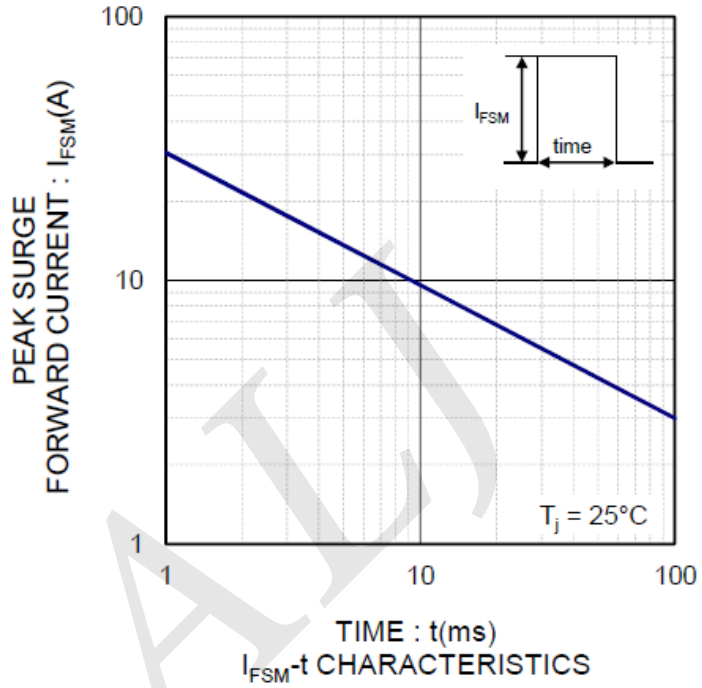




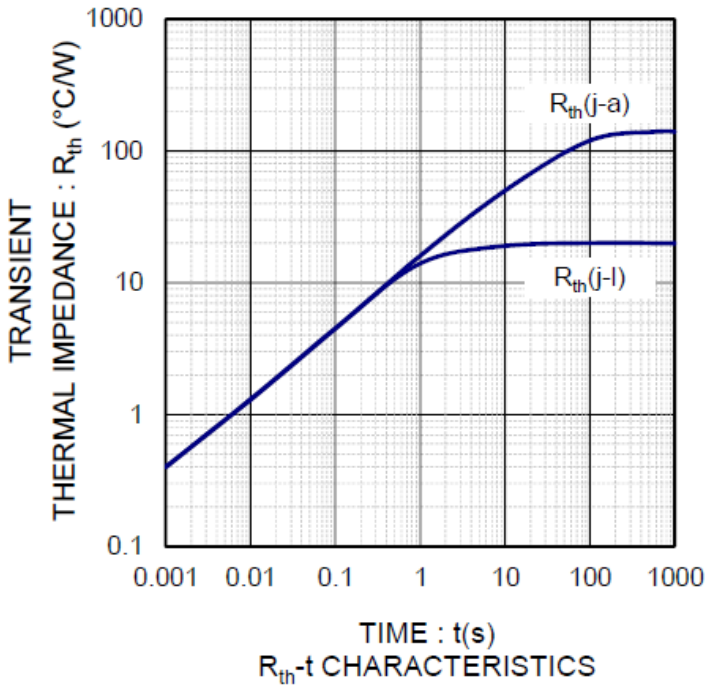




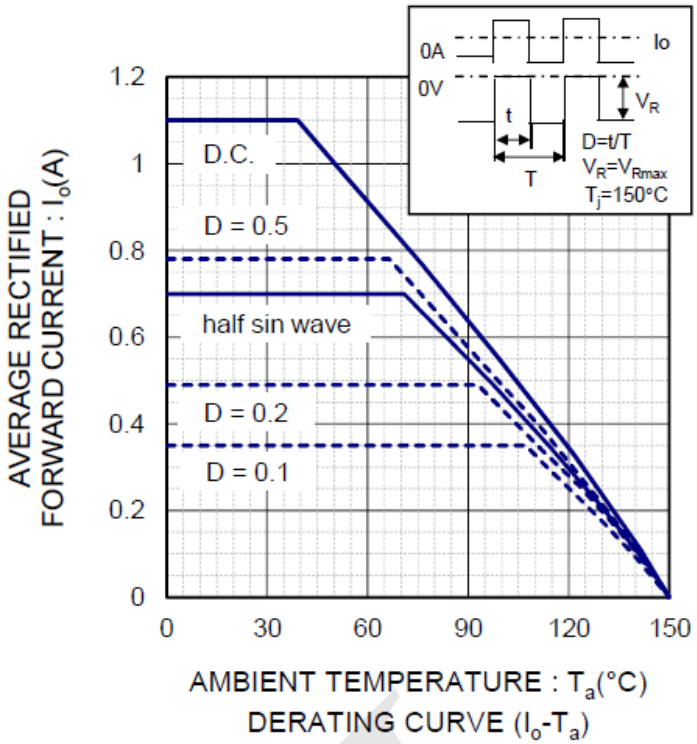
Typical Characteristics (Cont.)



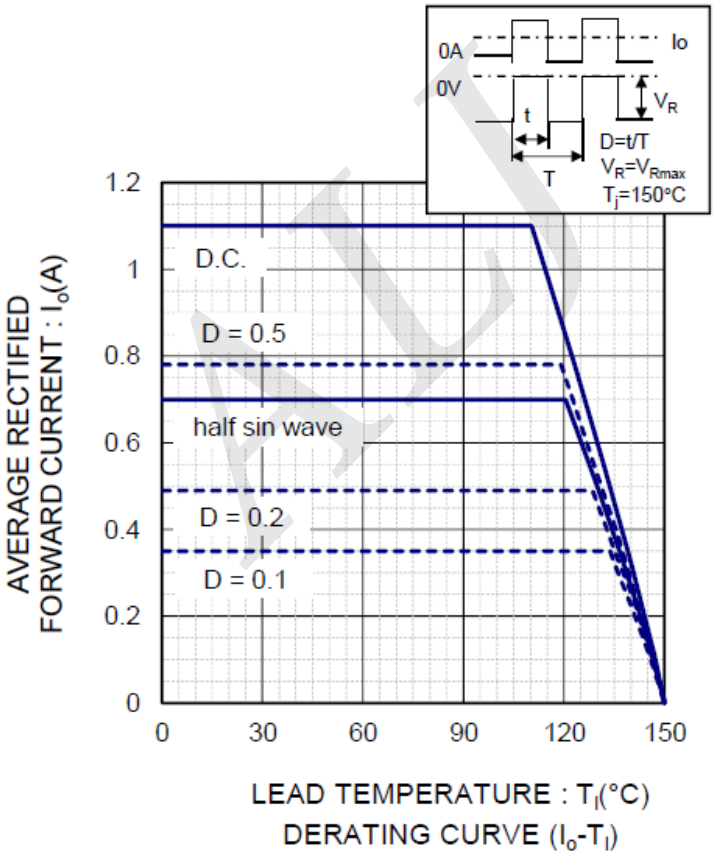
I_{FSM}-t CHARACTERISTICS



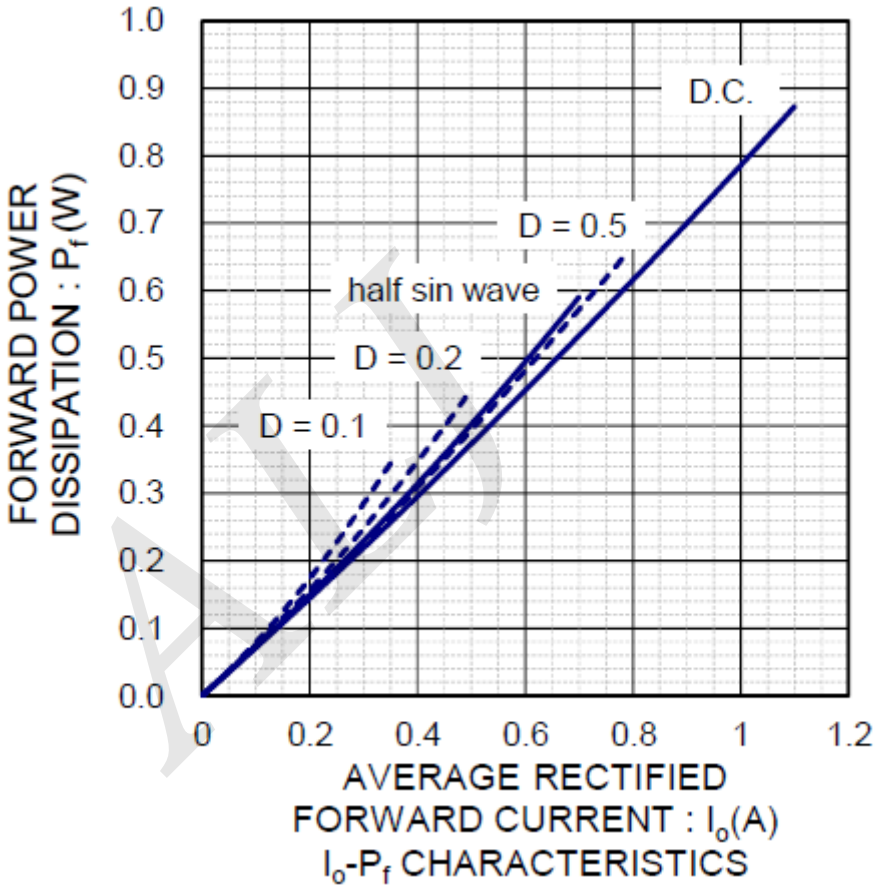
R_{th}-t CHARACTERISTICS



DERATING CURVE (I_o-T_a)



DERATING CURVE (I_o-T_l)


1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0
FORWARD POWER DISSIPATION : P_f(W)
D.C.
D = 0.5
half sin wave
D = 0.2
D = 0.1
0
0.2
0.4
0.6
0.8
1
1.2
AVERAGE RECTIFIED FORWARD CURRENT : I_o(A)
I_o-P_f CHARACTERISTICS