

# SHINDENGEN

## Schottky Rectifiers (SBD)

Single

# M1FS6

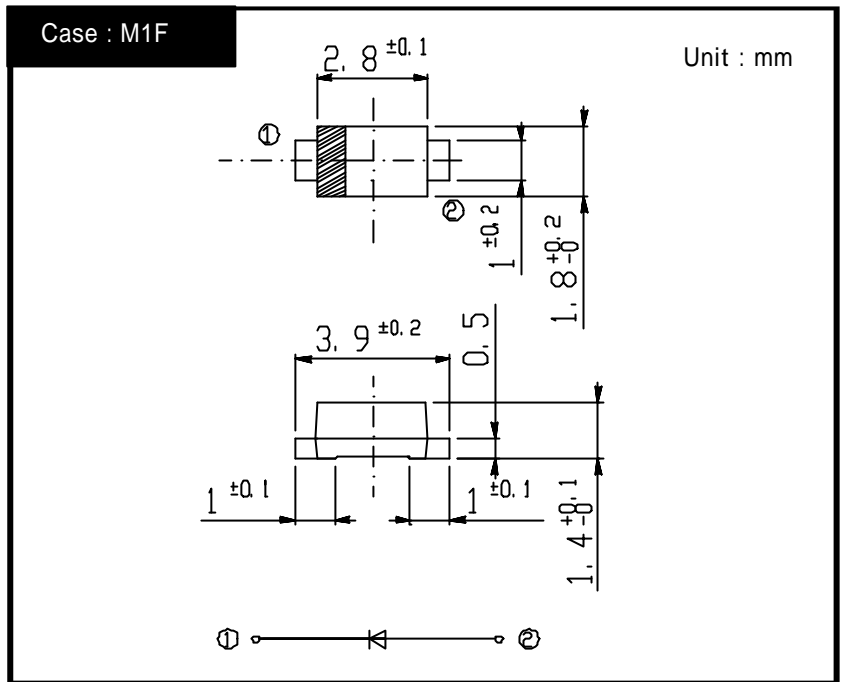
60V 1.2A

### FEATURES

- Small SMT
- Tj150
- Low  $V_F=0.45V$
- $P_{RRSM}$  avalanche guaranteed

### APPLICATION

- Switching power supply
- DC/DC converter
- Home Appliances, Office Equipment
- Telecommunication



## RATINGS

Absolute Maximum Ratings (If not specified  $T_I=25$  )

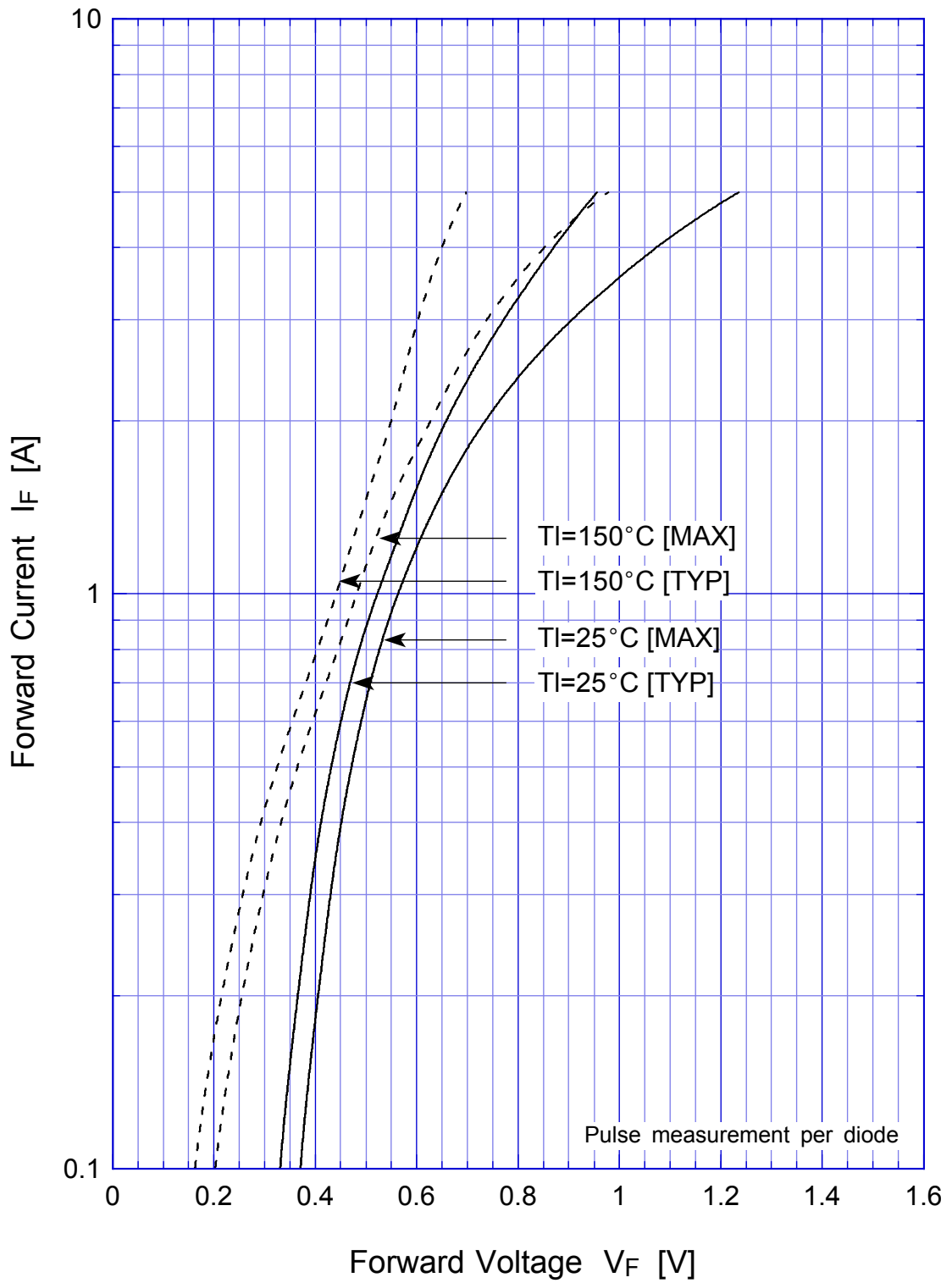
Item	Symbol	Conditions	Ratings	Unit
Storage Temperature	Tstg		-55 ~ 150	
Operating Junction Temperature	Tj		150	
Maximum Reverse Voltage	$V_{RM}$		60	V
Repetitive Peak Surge Reverse Voltage	$V_{RRSM}$	Pulse width 0.5ms, duty 1/40	65	V
Average Rectified Forward Current	Io	50Hz sine wave, R-load Ta=25 On alumina substrate	1.2	A
		50Hz sine wave, R-load Ta=25 On glass-epoxy substrate	0.75	
Peak Surge Forward Current	$I_{FSM}$	50Hz sine wave, Non-repetitive 1 cycle peak value, Tj=25	40	A
Repetitive Peak Surge Reverse Power	$P_{RRSM}$	Pulse width 10 $\mu$ s, Tj=25	60	W

Electrical Characteristics (If not specified  $T_I=25$  )

Item	Symbol	Conditions	Ratings	Unit
Forward Voltage	$V_F$	$I_F=1.1A$ , Pulse measurement	Max.0.58	V
Reverse Current	$I_R$	$V_R=60V$ , Pulse measurement	Max.1.0	mA
Junction Capacitance	Cj	f=1MHz, $V_R=10V$	Typ.53	pF
Thermal Resistance	j	junction to lead	Max.20	/W
		junction to ambient On alumina substrate	Max.108	
		junction to ambient On glass-epoxy substrate	Max.186	

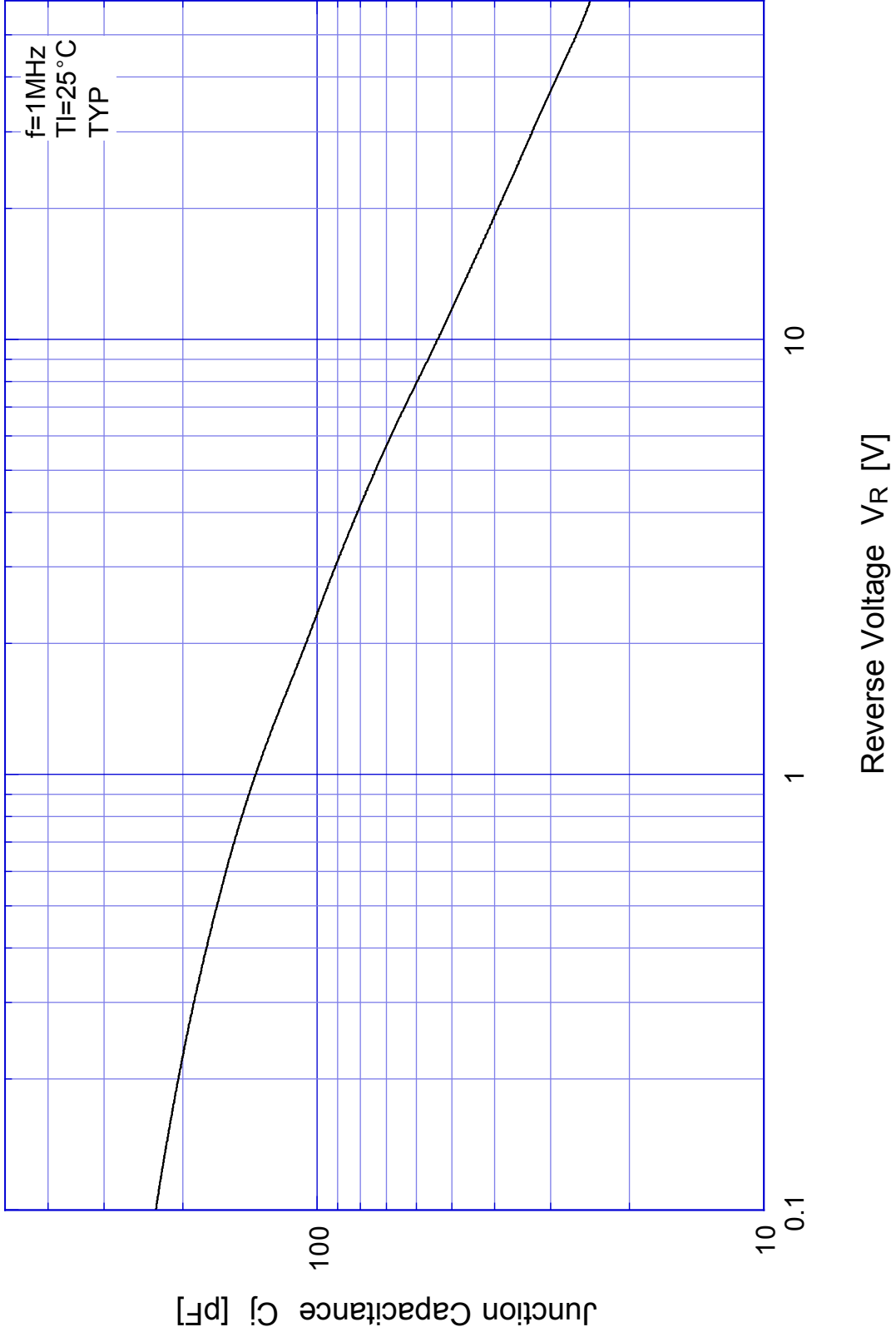
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# Forward Voltage



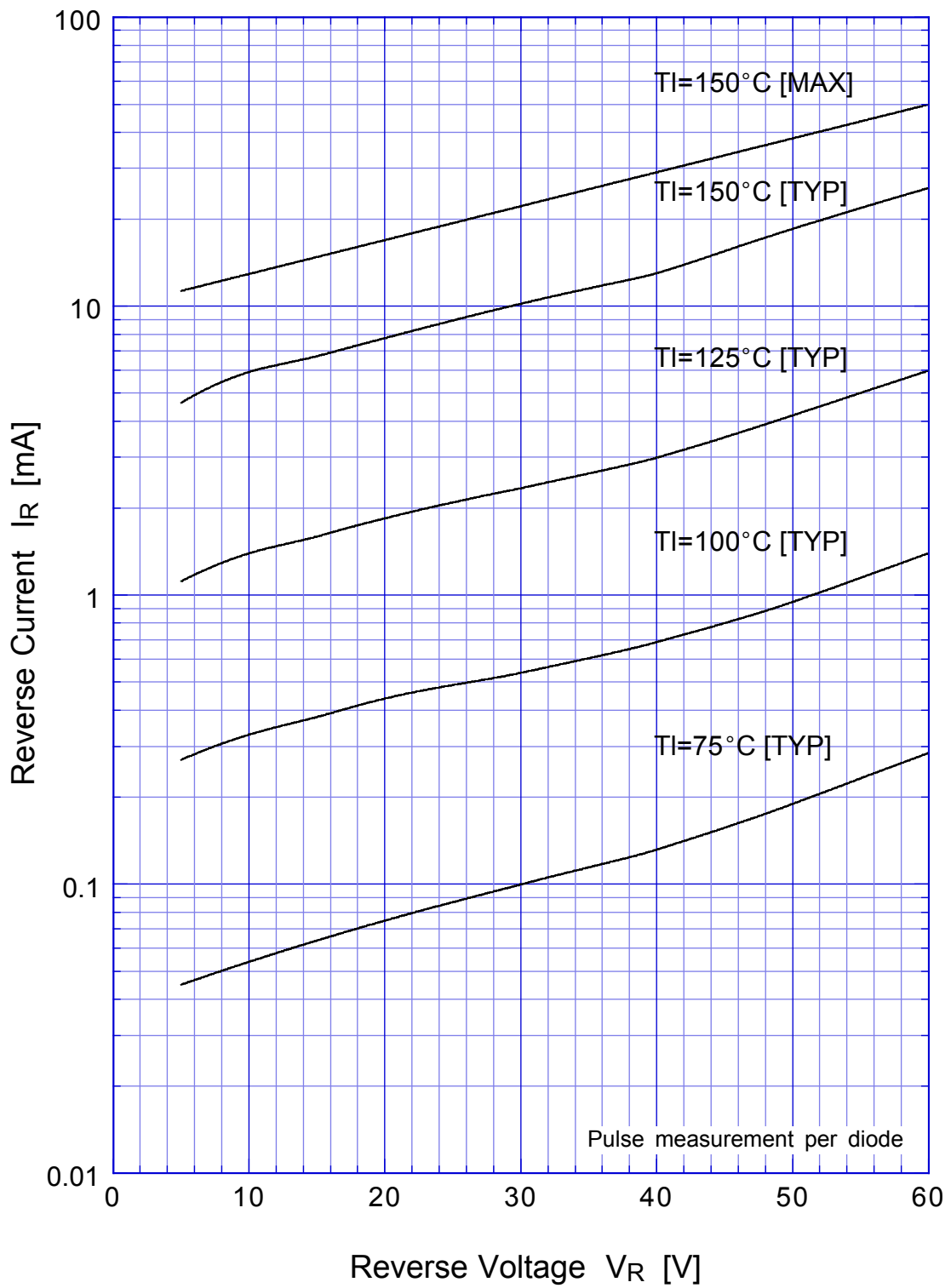
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## Junction Capacitance



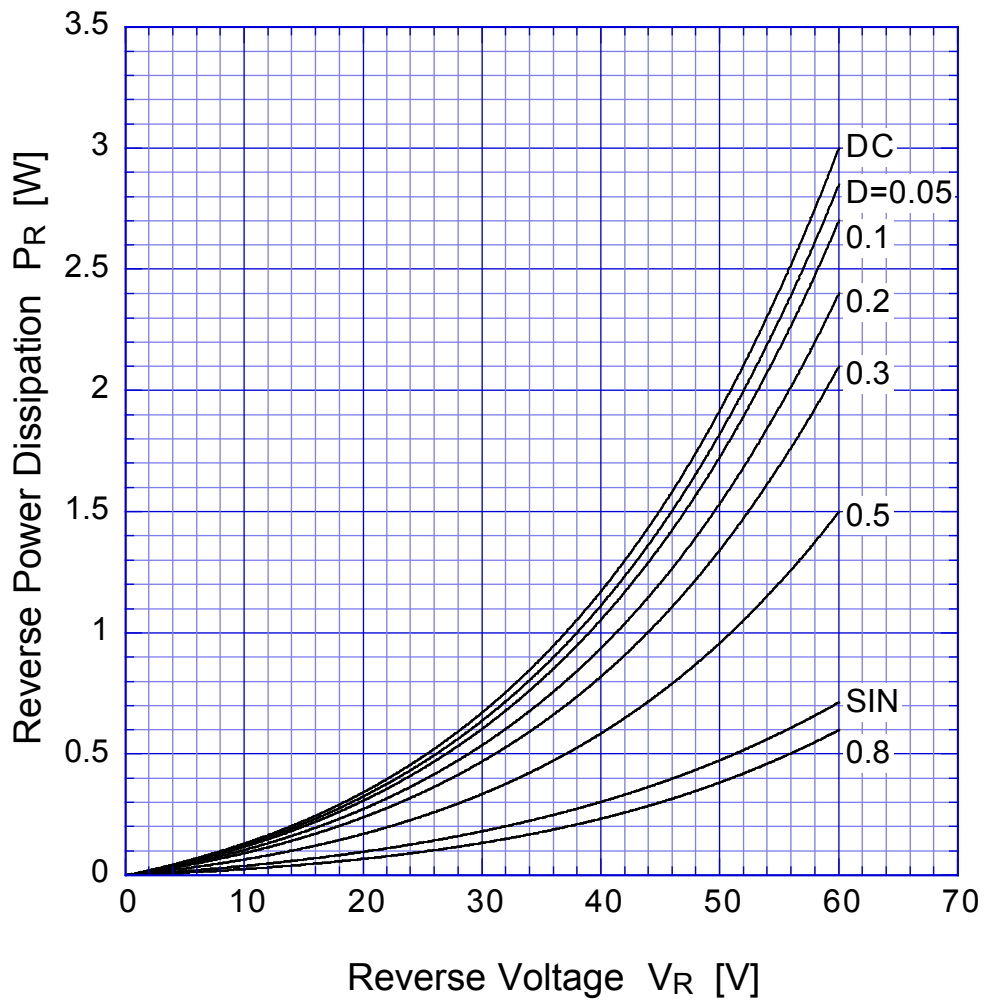
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## Reverse Current

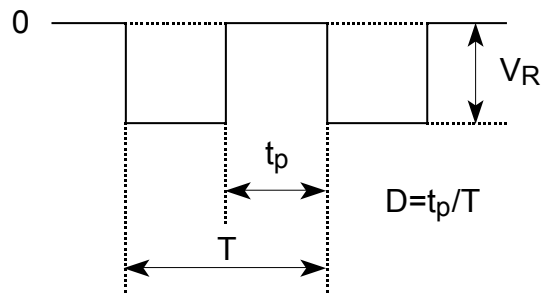


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## Reverse Power Dissipation

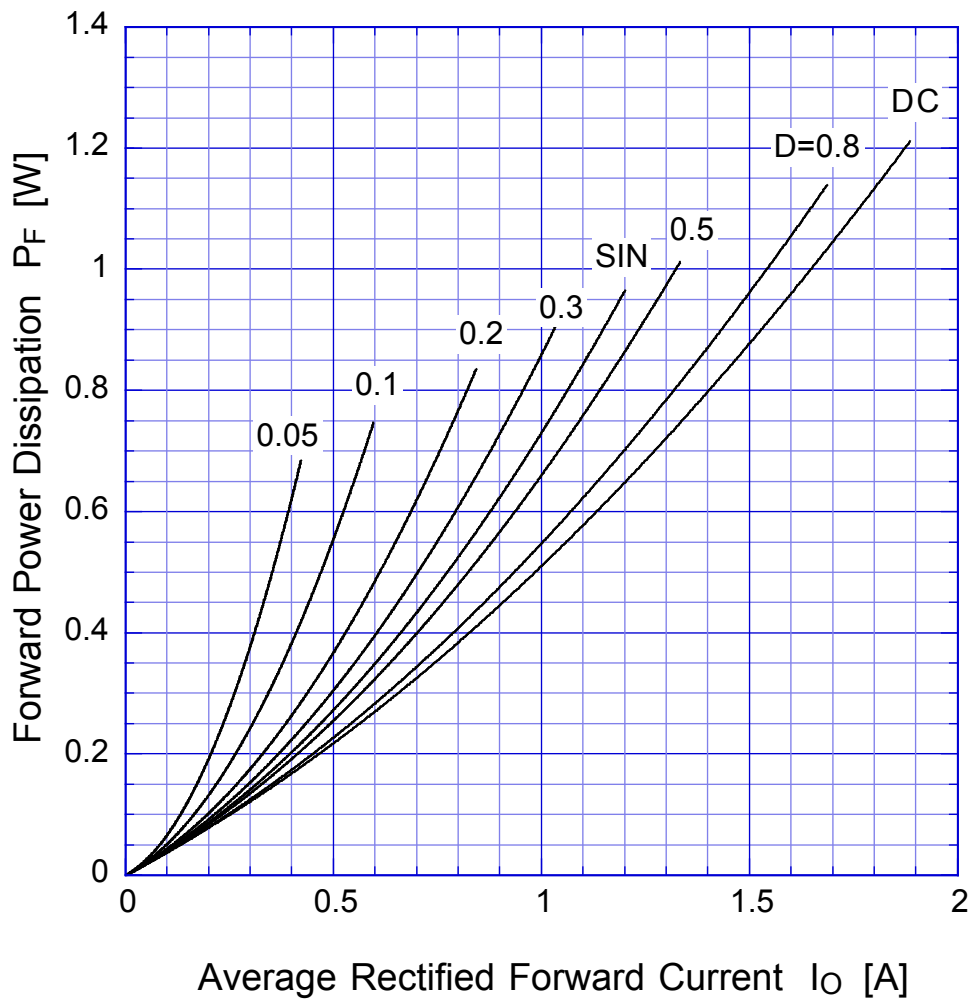


$T_j = 150^\circ\text{C}$

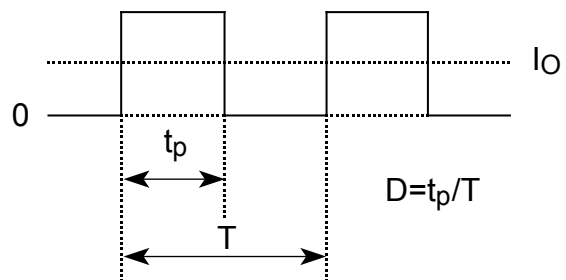


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## Forward Power Dissipation

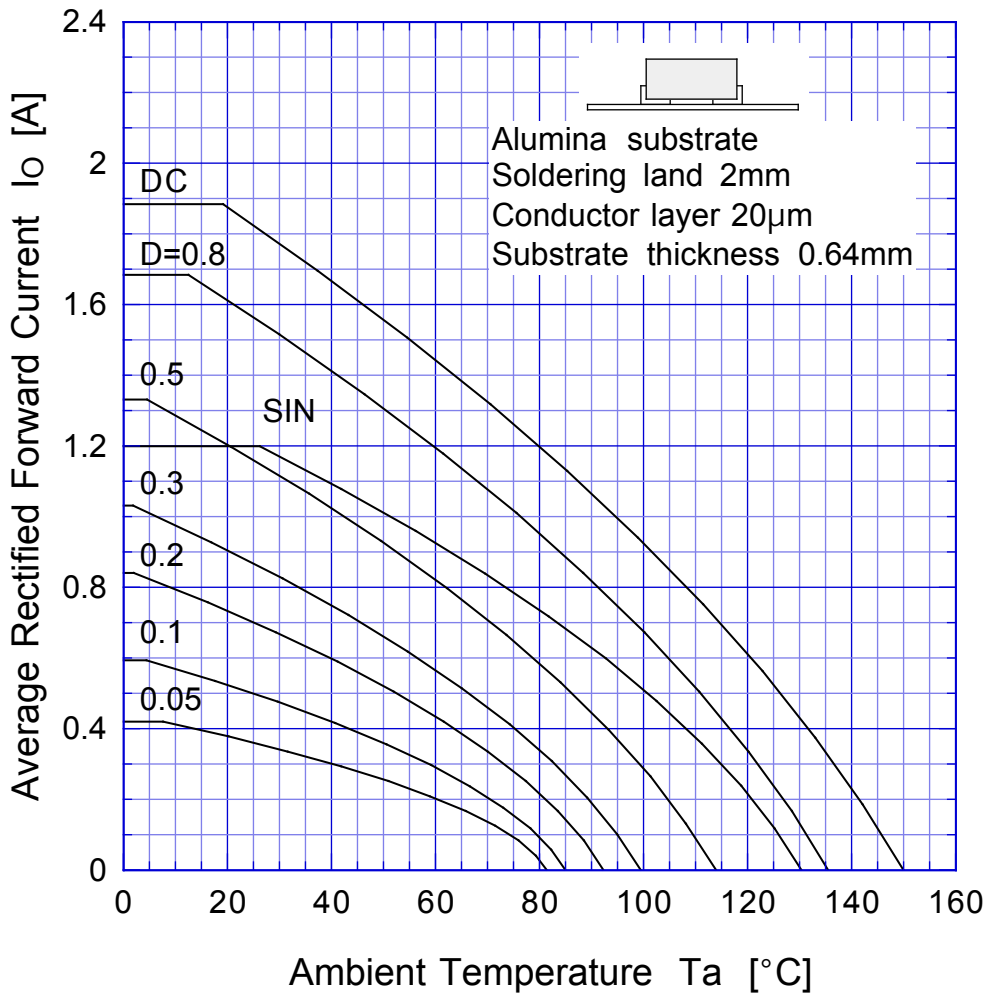


$T_j = 150^\circ\text{C}$

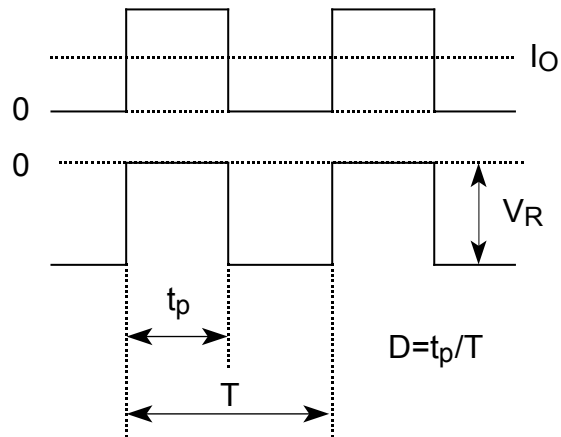


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# Derating Curve

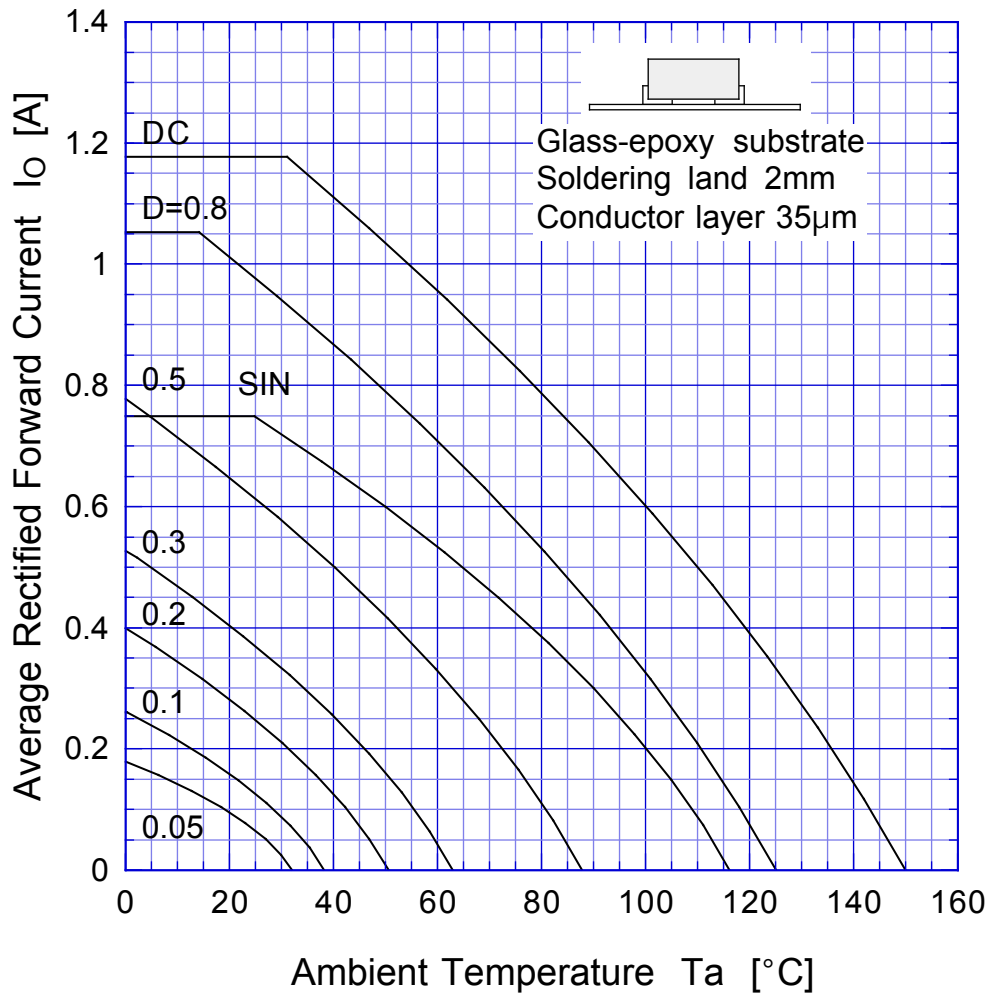


$V_R = 30V$

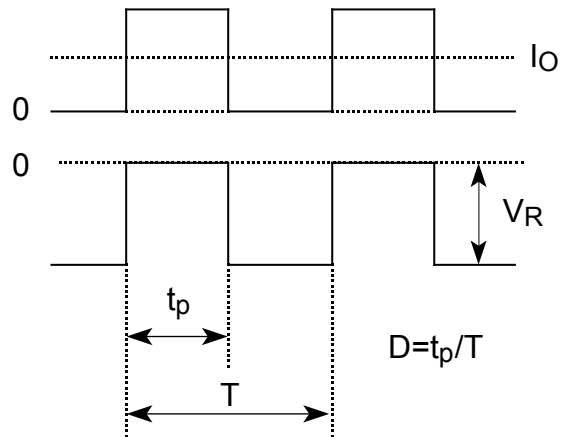


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# Derating Curve



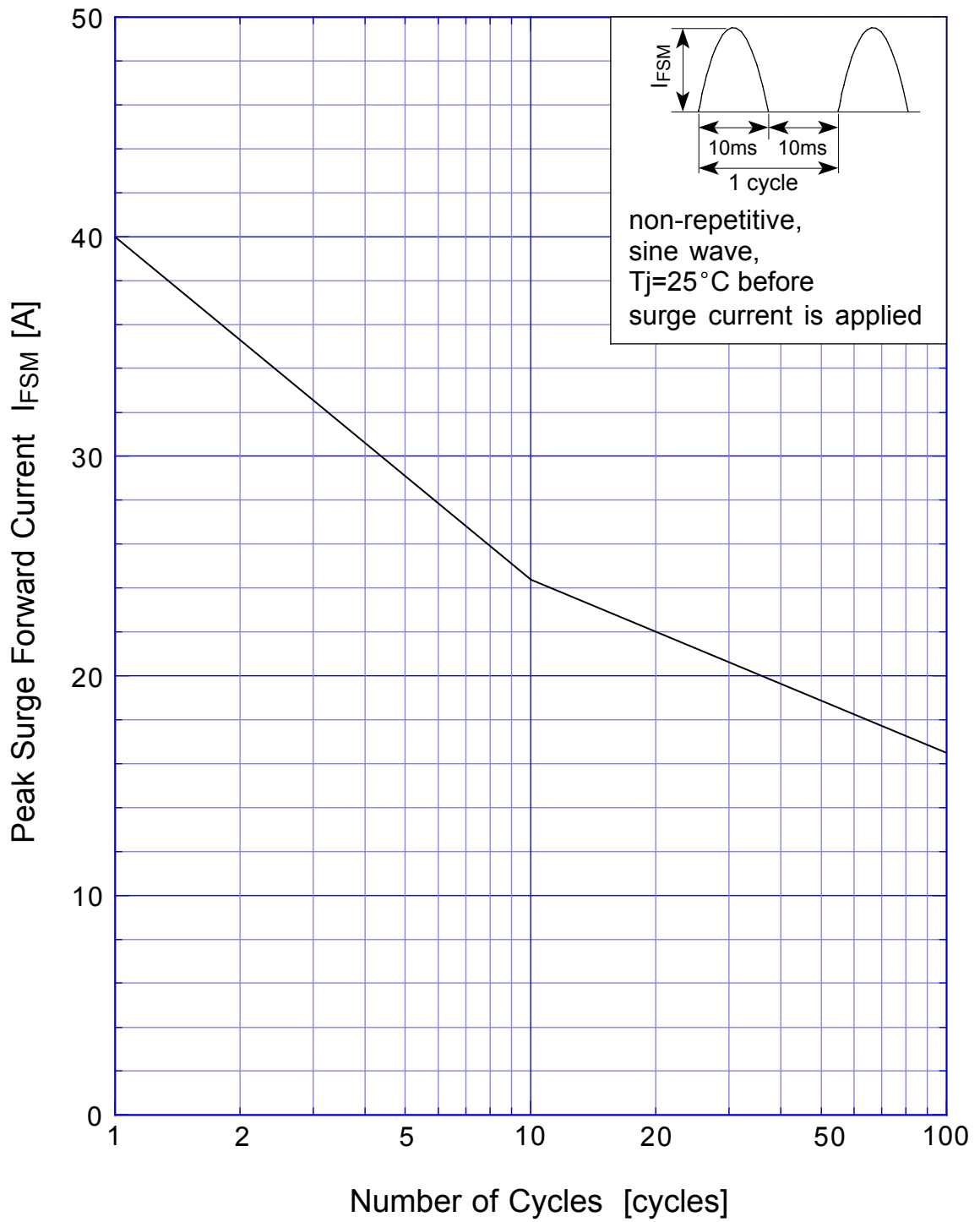
$V_R = 30V$



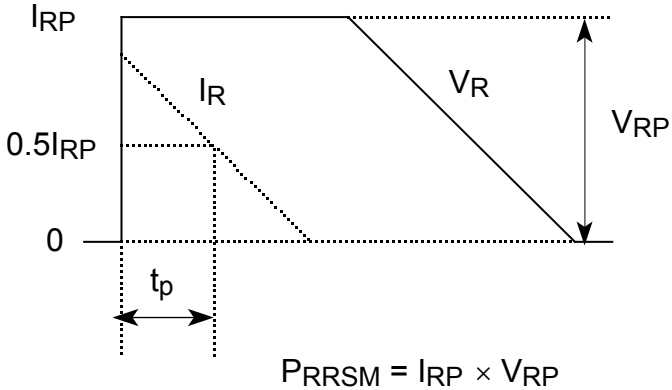
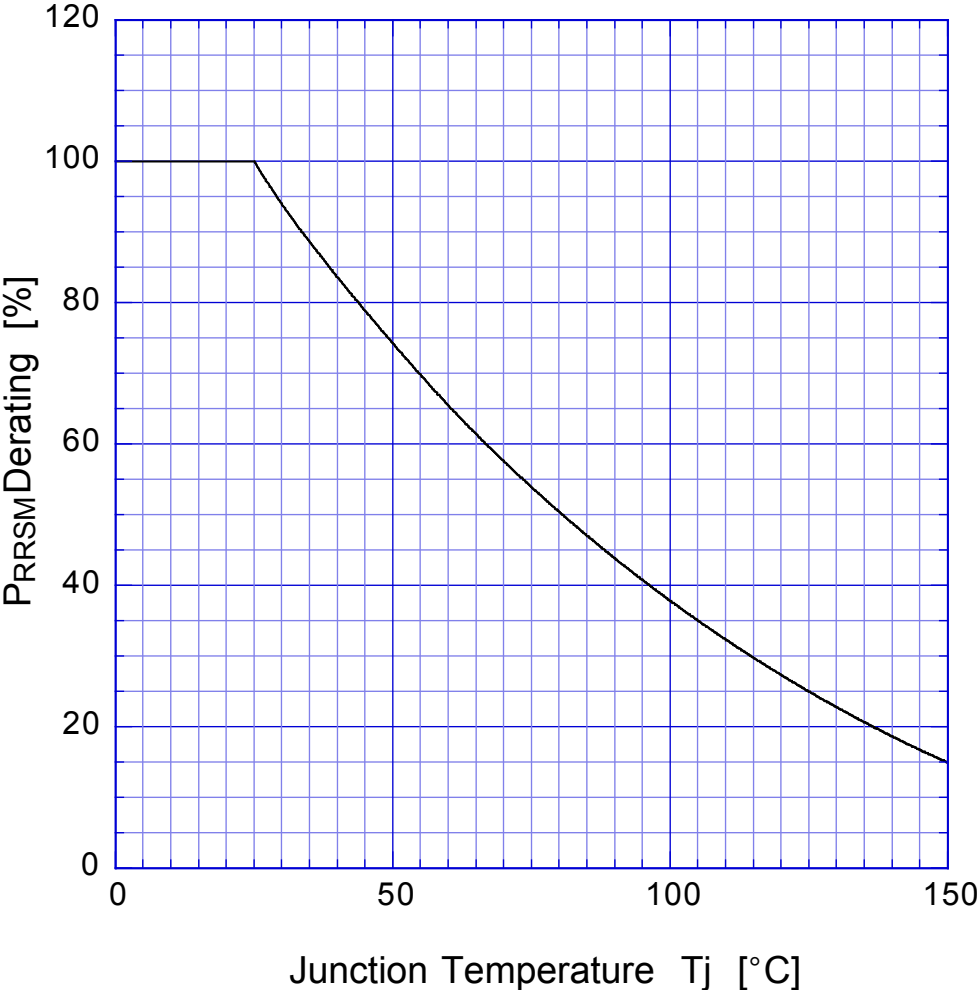


# M1FS6

## Peak Surge Forward Capability



# SBD Repetitive Surge Reverse Power Derating Curve



# SBD

## Repetitive Surge Reverse Power Capability

