

M1FP3

30V 1.29A

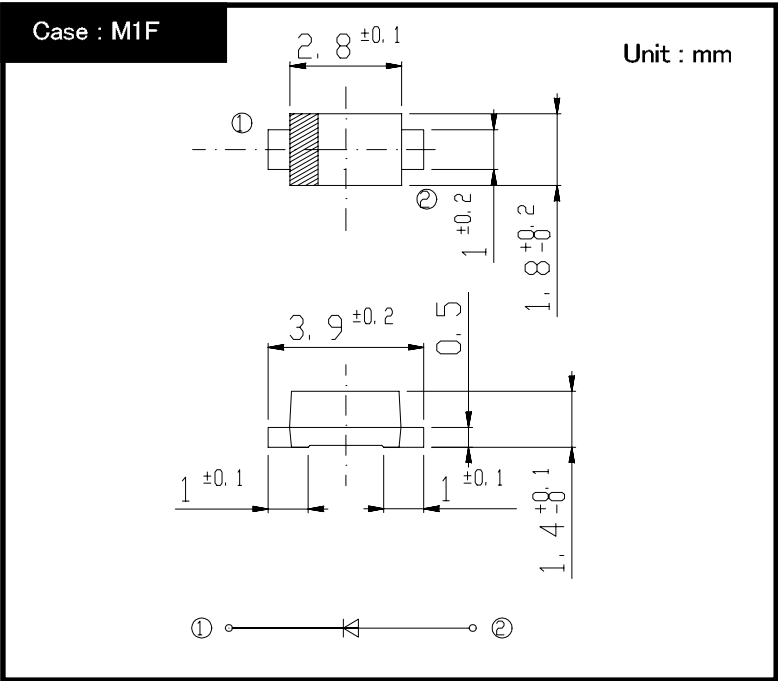
FEATURES

- Small SMT
- Super low $V_F=0.4V$

APPLICATION

- Reversed Battery Connection Protection
- DC OR output
- DC/DC converter
- Mobile telephone, personal computer

OUTLINE DIMENSIONS



RATINGS

● Absolute Maximum Ratings (If not specified $T_I=25^{\circ}C$)

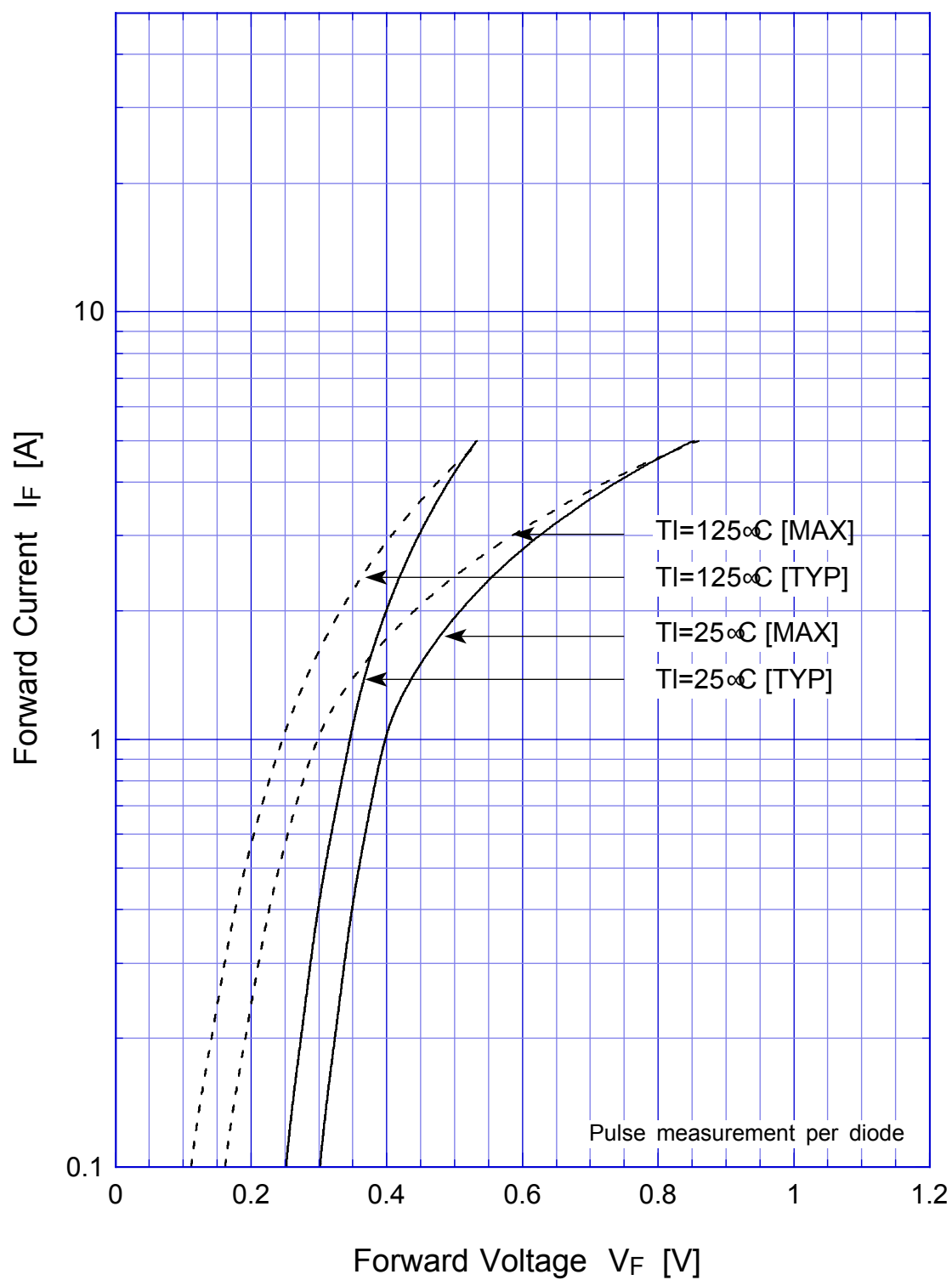
Item	Symbol	Conditions	Ratings	Unit
Storage Temperature	T_{stg}		$-55 \sim 125$	$^{\circ}C$
Operating Junction Temperature	T_j		125	$^{\circ}C$
Maximum Reverse Voltage	V_{RM}		30	V
Average Rectified Forward Current	I_O	50Hz sine wave, R-load $T_a=25^{\circ}C$ On alumina substrate	1.29	A
		50Hz sine wave, R-load $T_I=109^{\circ}C$ On glass-epoxy substrate	1.1	
Peak Surge Forward Current	I_{FSM}	50Hz sine wave, Non-repetitive 1 cycle peak value, $T_j=25^{\circ}C$	30	A

● Electrical Characteristics (If not specified $T_I=25^{\circ}C$)

Item	Symbol	Conditions	Ratings	Unit
Forward Voltage	V_F	$I_F=0.4A$, Pulse measurement	Max.0.35	V
		$I_F=1.1A$, Pulse measurement	Max.0.40	
Reverse Current	I_R	$V_R=30V$, Pulse measurement	Max.2.5	mA
Junction Capacitance	C_j	$f=1MHz$, $V_R=10V$	Typ.90	pF
Thermal Resistance	θ_{jl}	junction to lead	Max.20	$^{\circ}C/W$
	θ_{ja}	junction to ambient On alumina substrate	Max.108	
	θ_{ja}	junction to ambient On glass-epoxy substrate	Max.186	

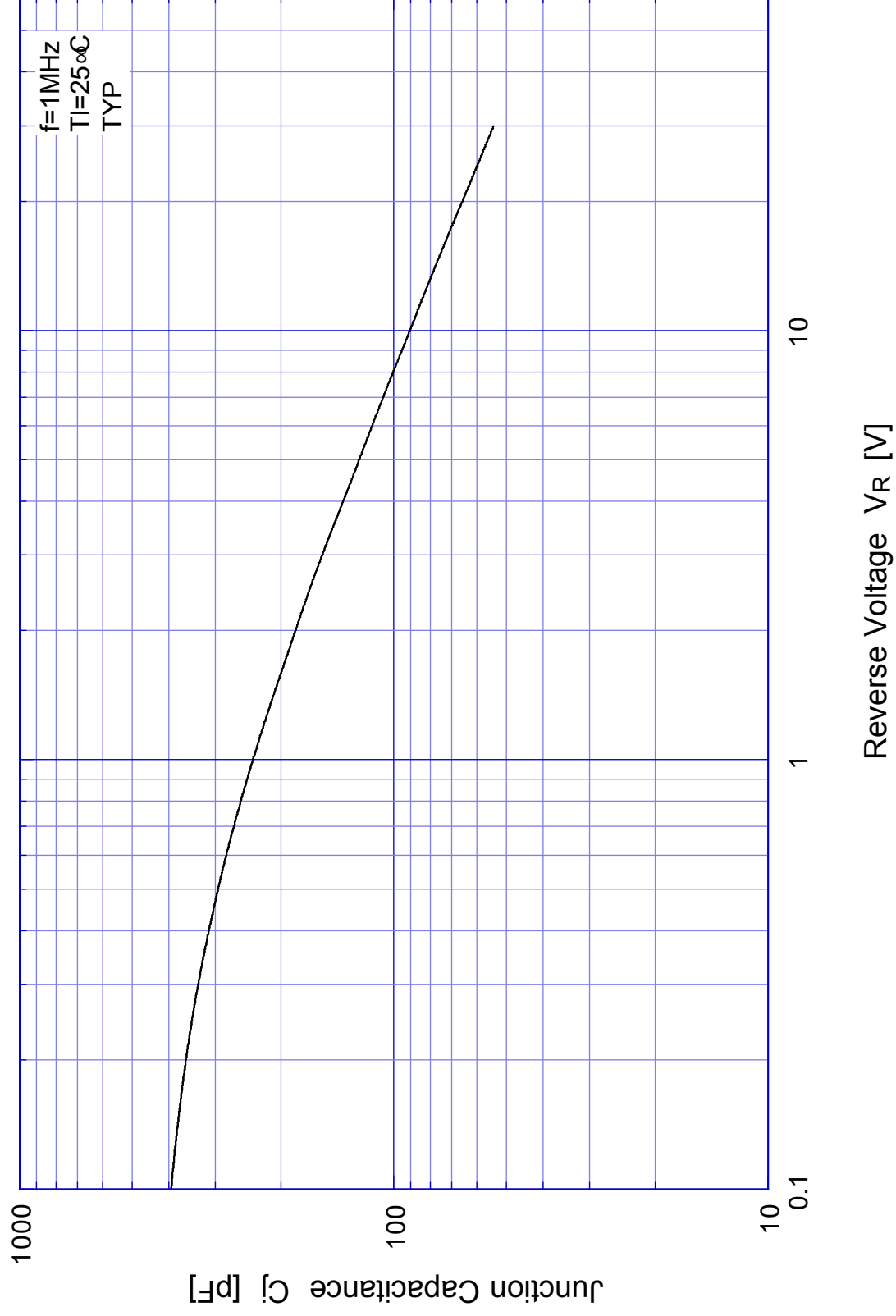
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Forward Voltage



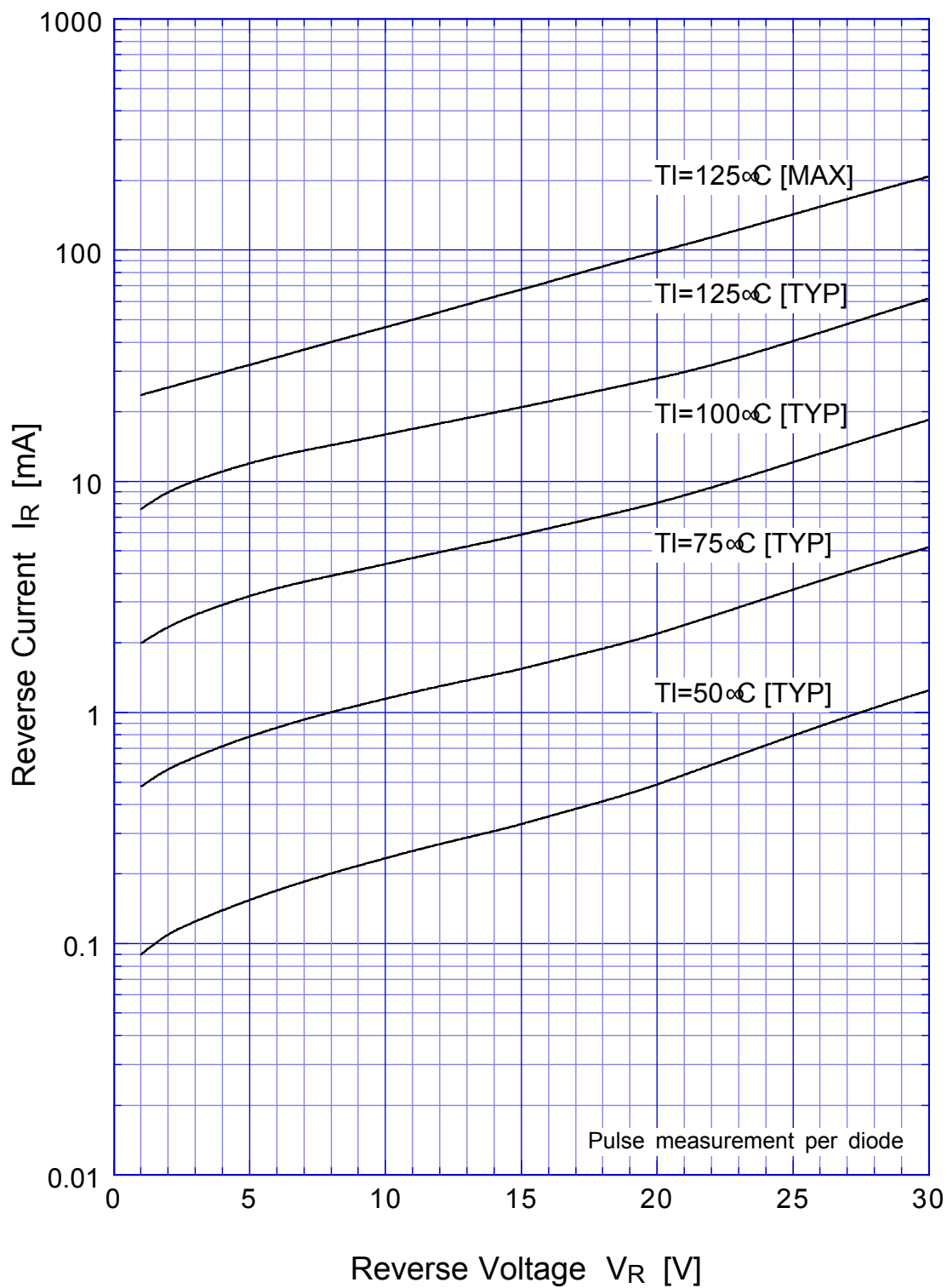
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Junction Capacitance



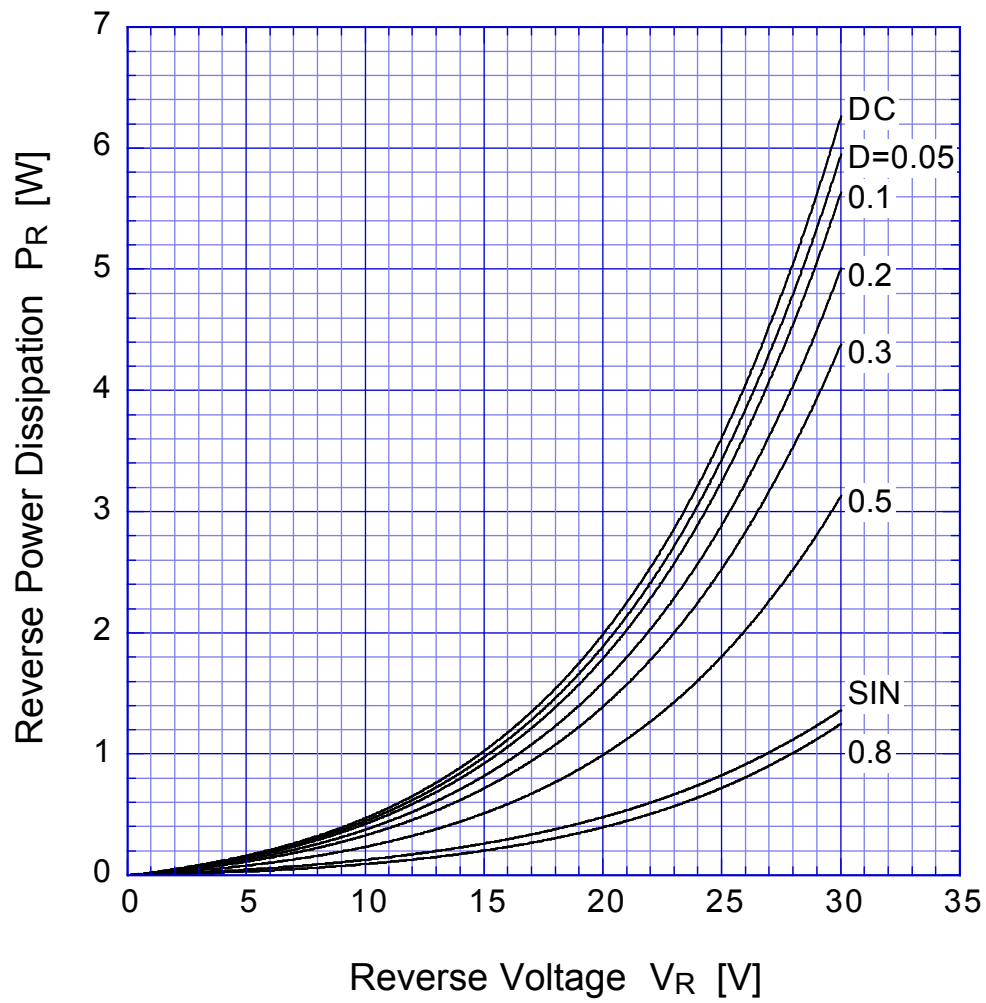
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Reverse Current

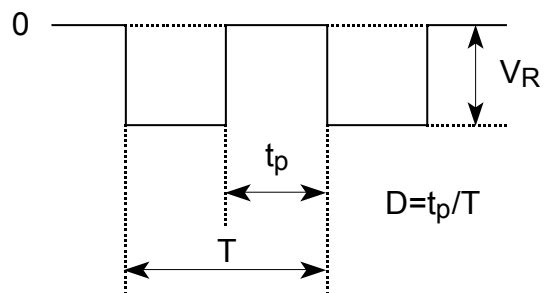


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Reverse Power Dissipation

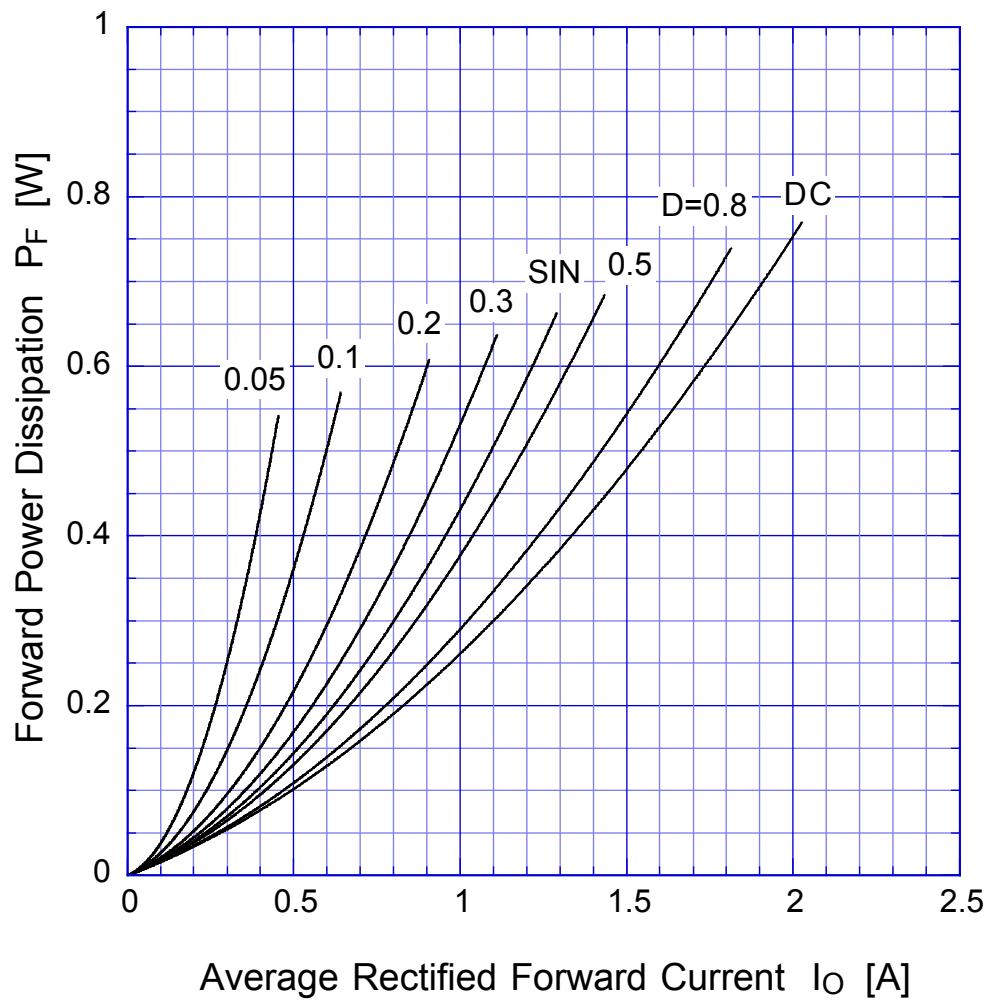


$T_j = 125^\circ\text{C}$



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Forward Power Dissipation

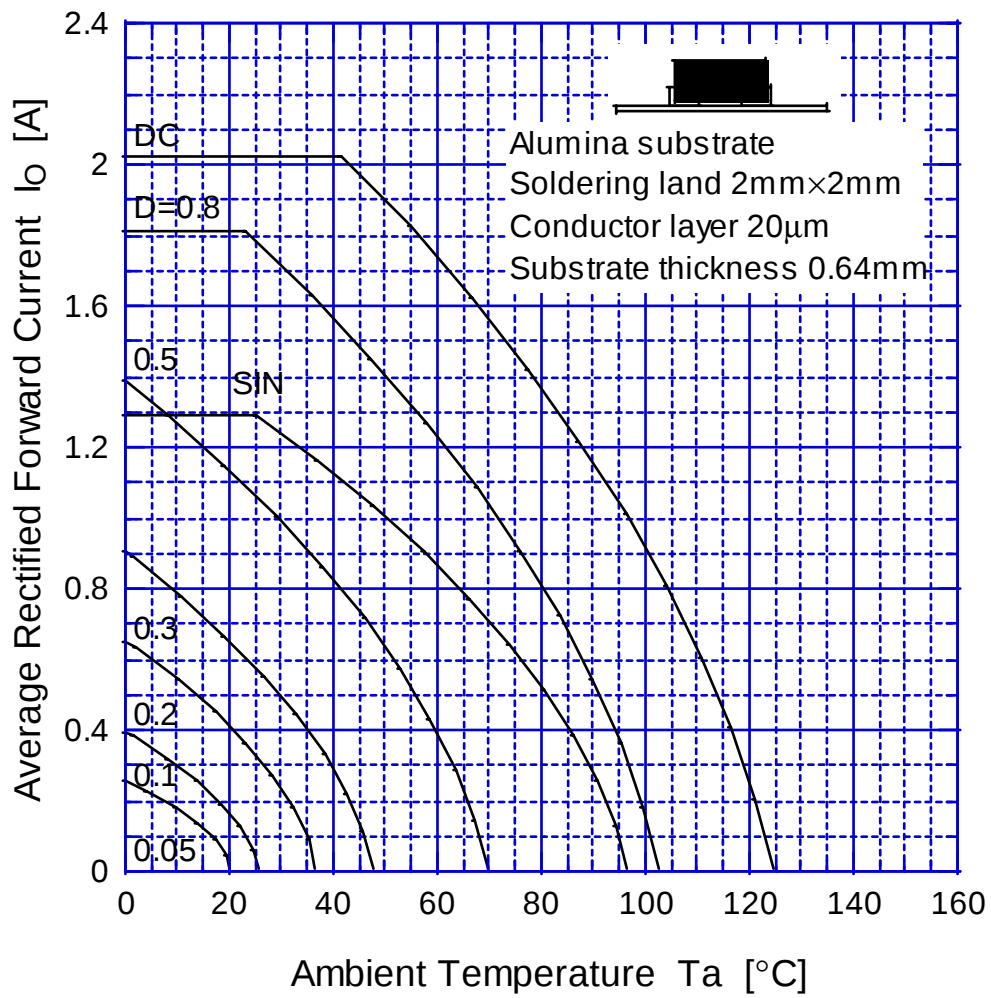


$T_j = 125^\circ\text{C}$

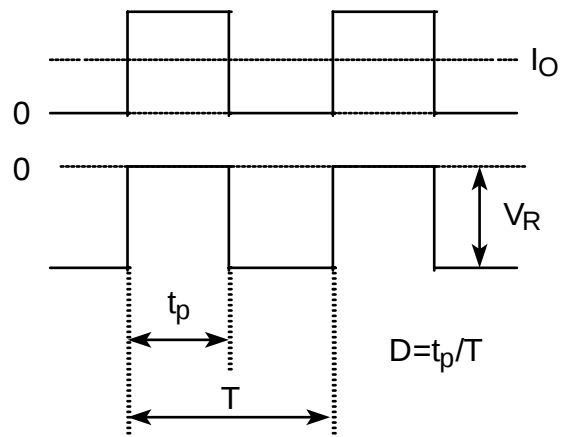


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Derating Curve

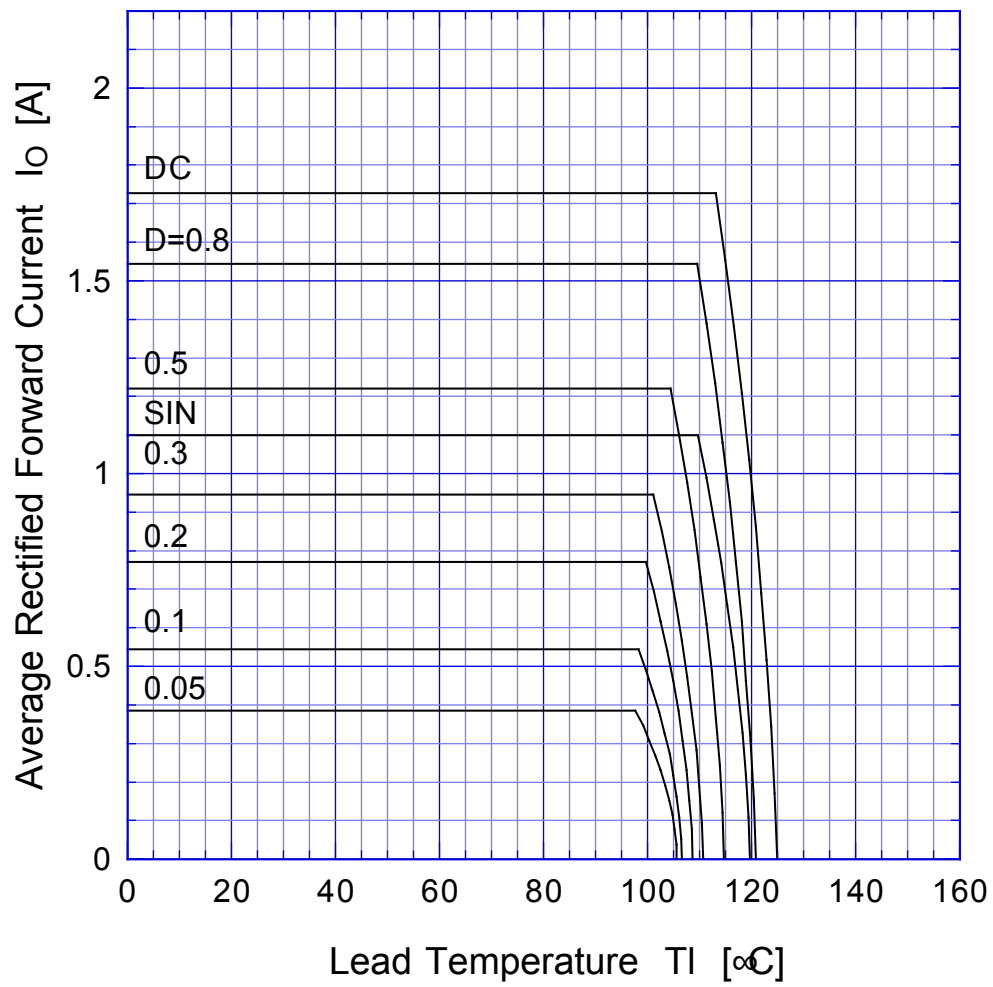


$V_R = 15V$

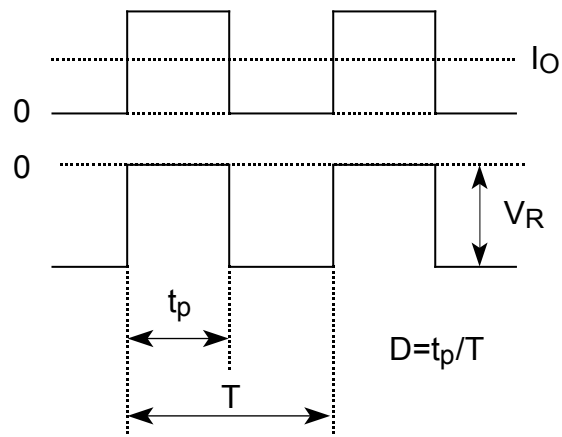


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Derating Curve



$V_R = 15V$



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Peak Surge Forward Capability

