

D1FP3

30V 2A

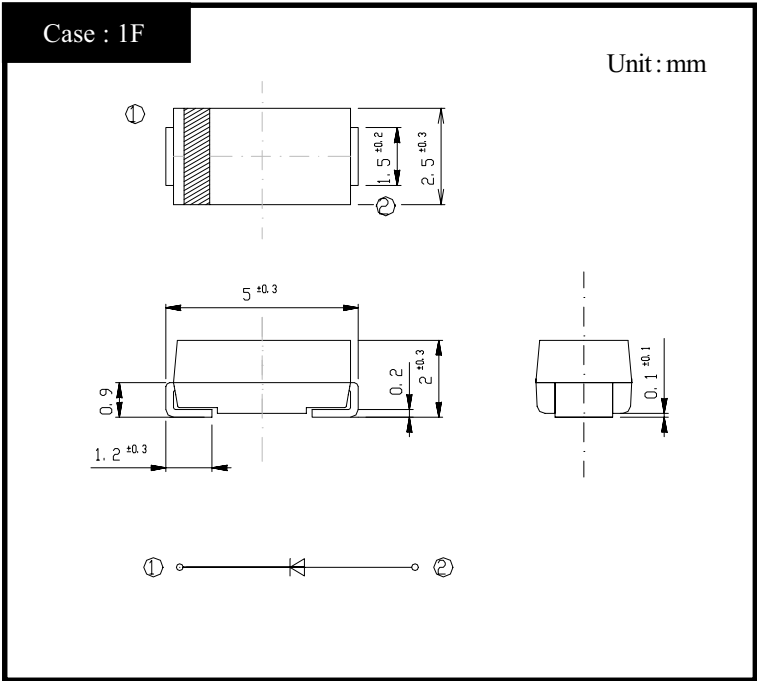
FEATURES

- 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 $T_I=25^{\circ}C$)

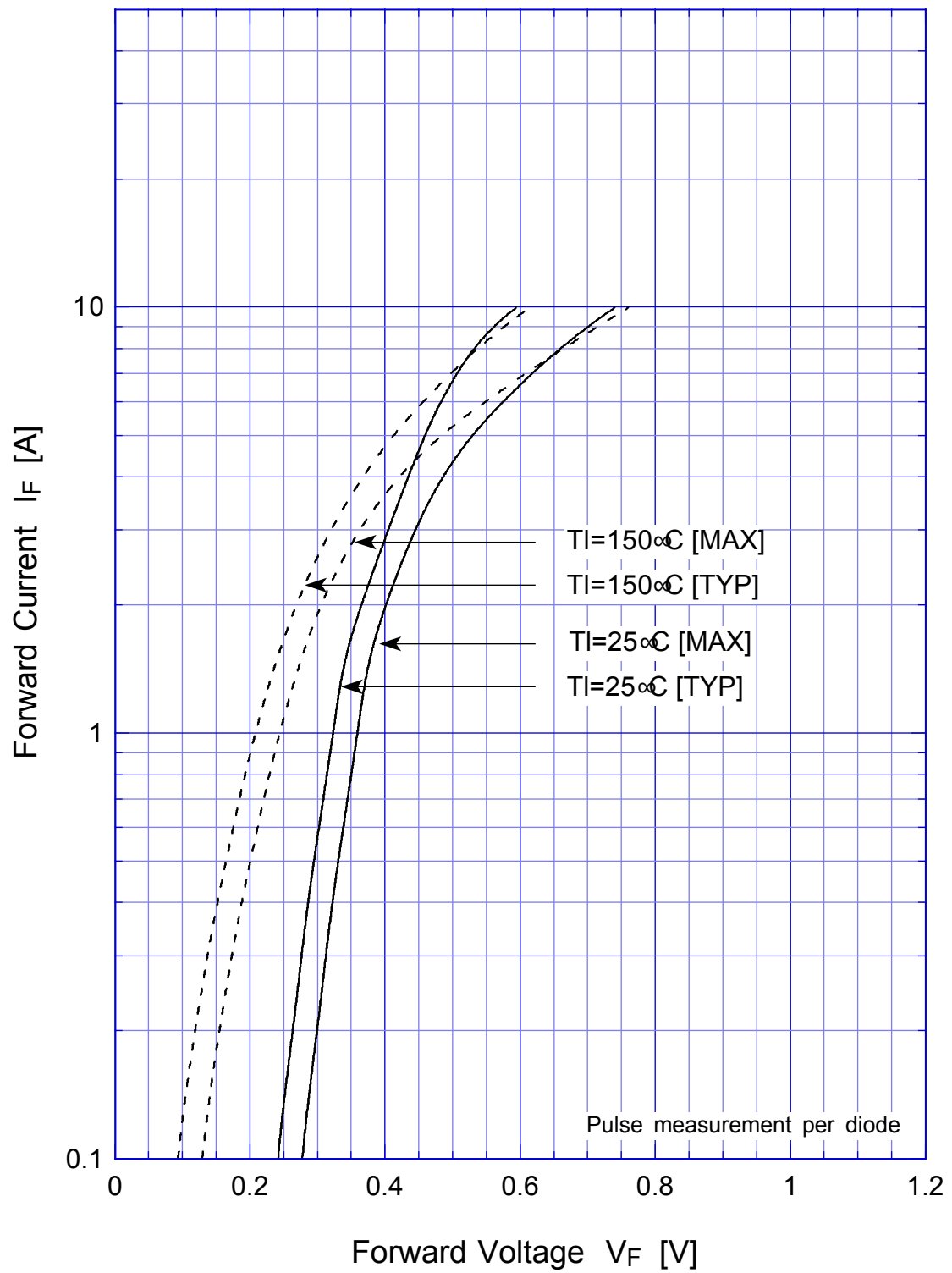
Item	Symbol	Conditions	Ratings	Unit
Storage Temperature	T_{stg}		$-55 \sim 125$	$^{\circ}C$
Operating Junction Temperature	T_j		125	$^{\circ}C$
Maximum Reverse Voltage	V_{RM}		30	V
Repetitive Peak Surge Reverse Voltage	V_{RRSM}	Pulse width 0.5ms, duty 1/40	35	V
Average Rectified Forward Current	I_O	50Hz sine wave, R-load, $T_I=98^{\circ}C$	2.0	A
Peak Surge Forward Current	I_{FSM}	50Hz sine wave, Non-repetitive 1 cycle peak value, $T_j=25^{\circ}C$	60	A

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

Item	Symbol	Conditions	Ratings	Unit
Forward Voltage	V_F	$I_F=0.8A$, Pulse measurement	Max.0.35	V
		$I_F=2A$, Pulse measurement	Max.0.40	V
Reverse Current	I_R	$V_R=V_{RM}$, Pulse measurement	Max.4.5	mA
Junction Capacitance	C_j	$f=1MHz$, $V_R=10V$	Typ.130	pF
Thermal Resistance	θ_{jl}	junction to lead	Max.23	$^{\circ}C/W$
	θ_{ja}	junction to ambient On alumina substrate	Max.108	
	θ_{ja}	junction to ambient On glass-epoxy substrate	Max.157	

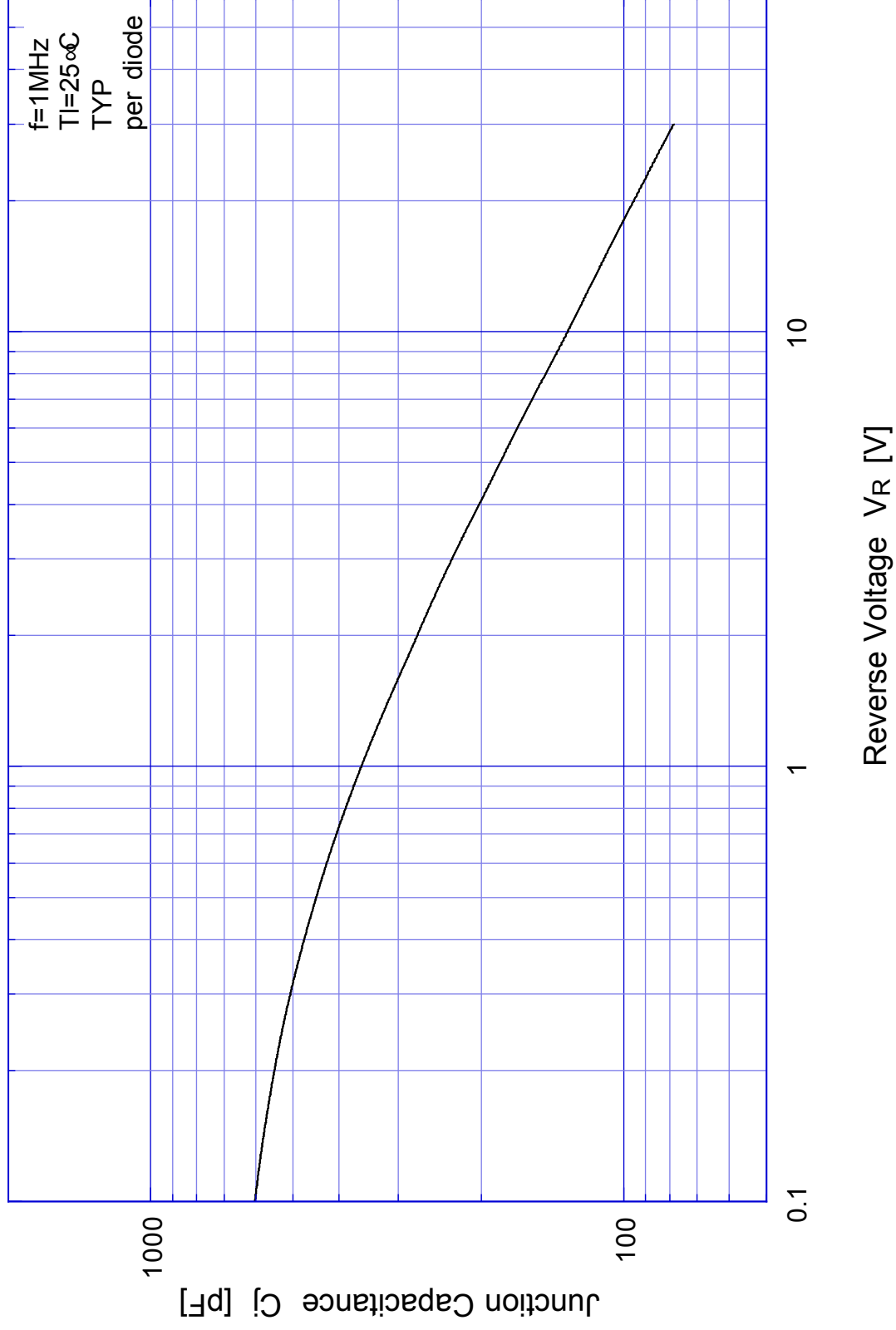
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Forward Voltage



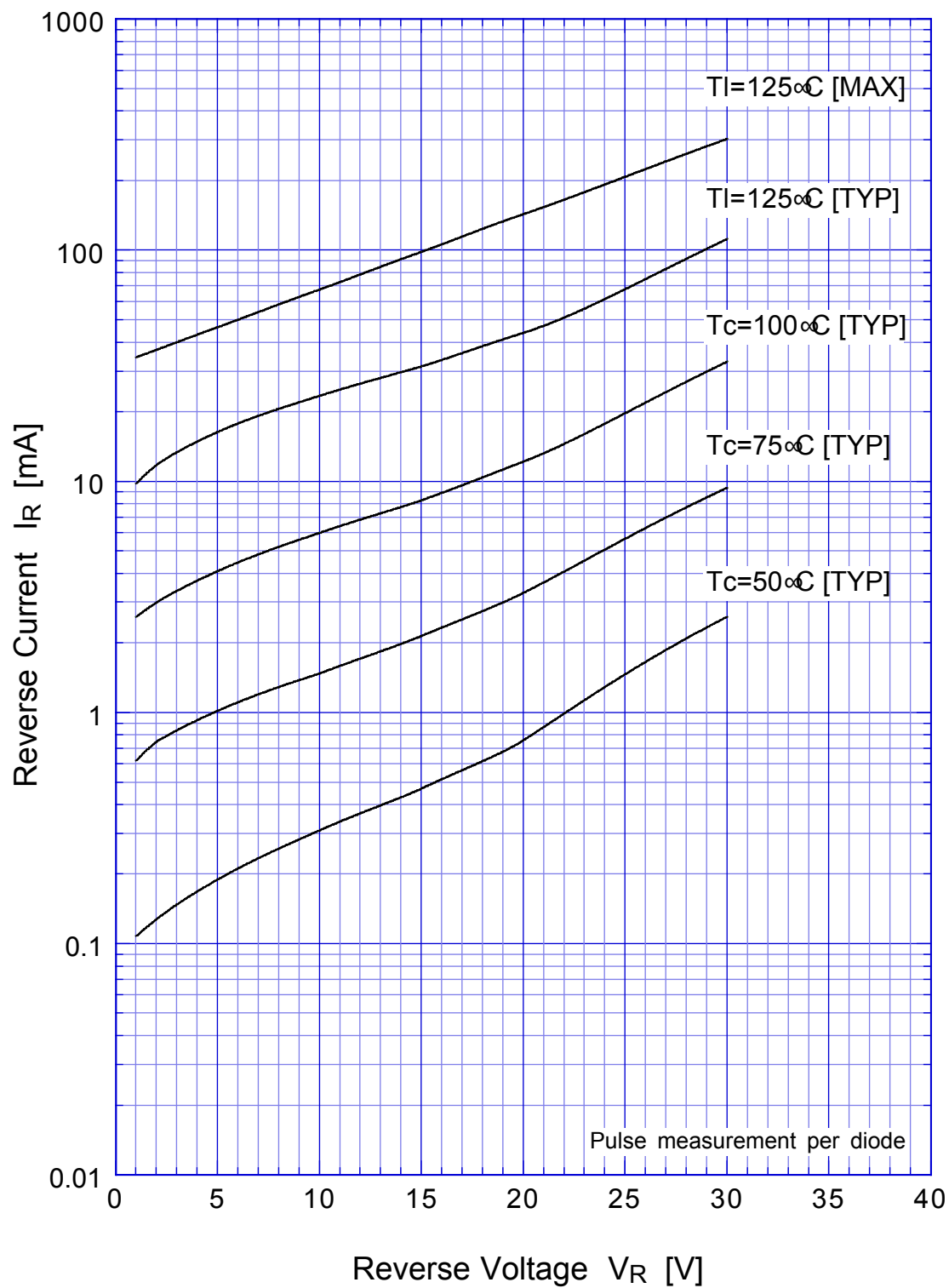
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Junction Capacitance



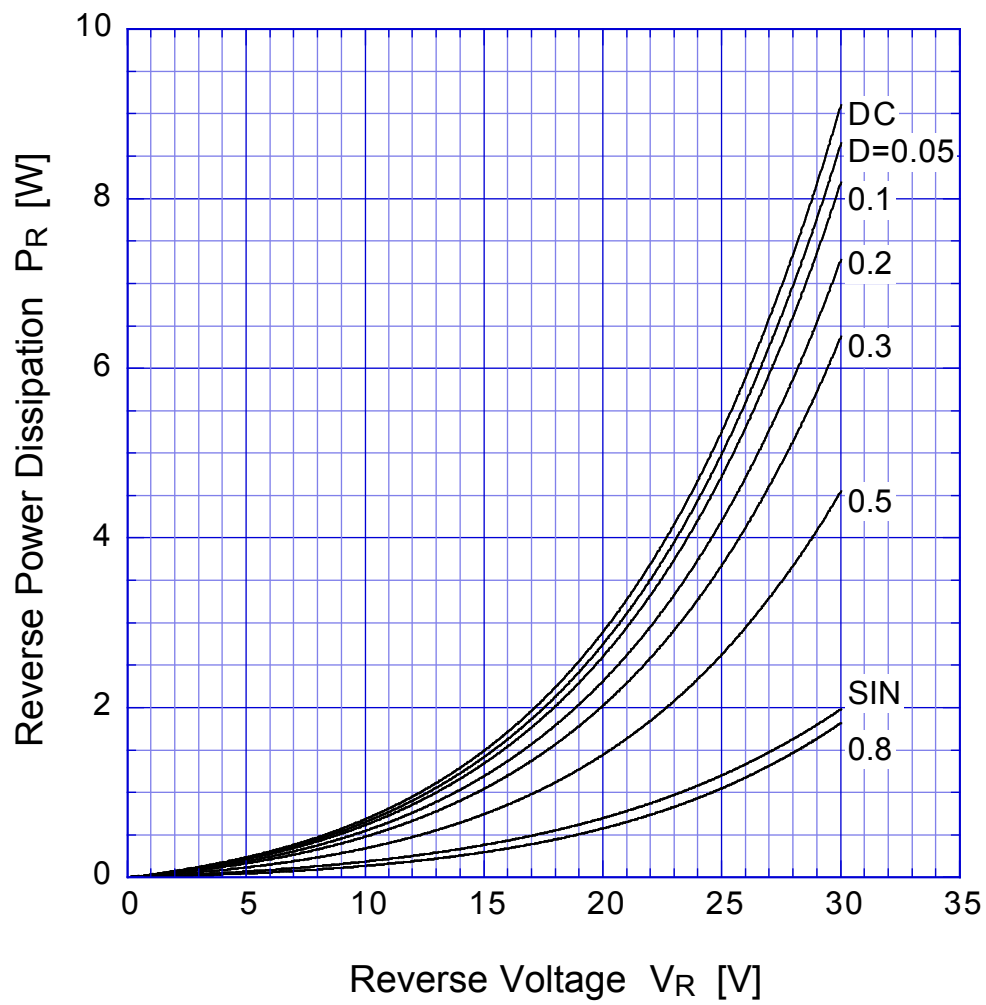
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Reverse Current

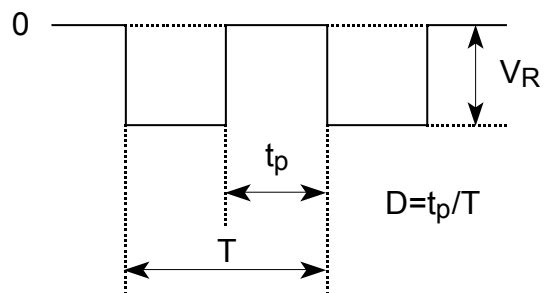


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Reverse Power Dissipation

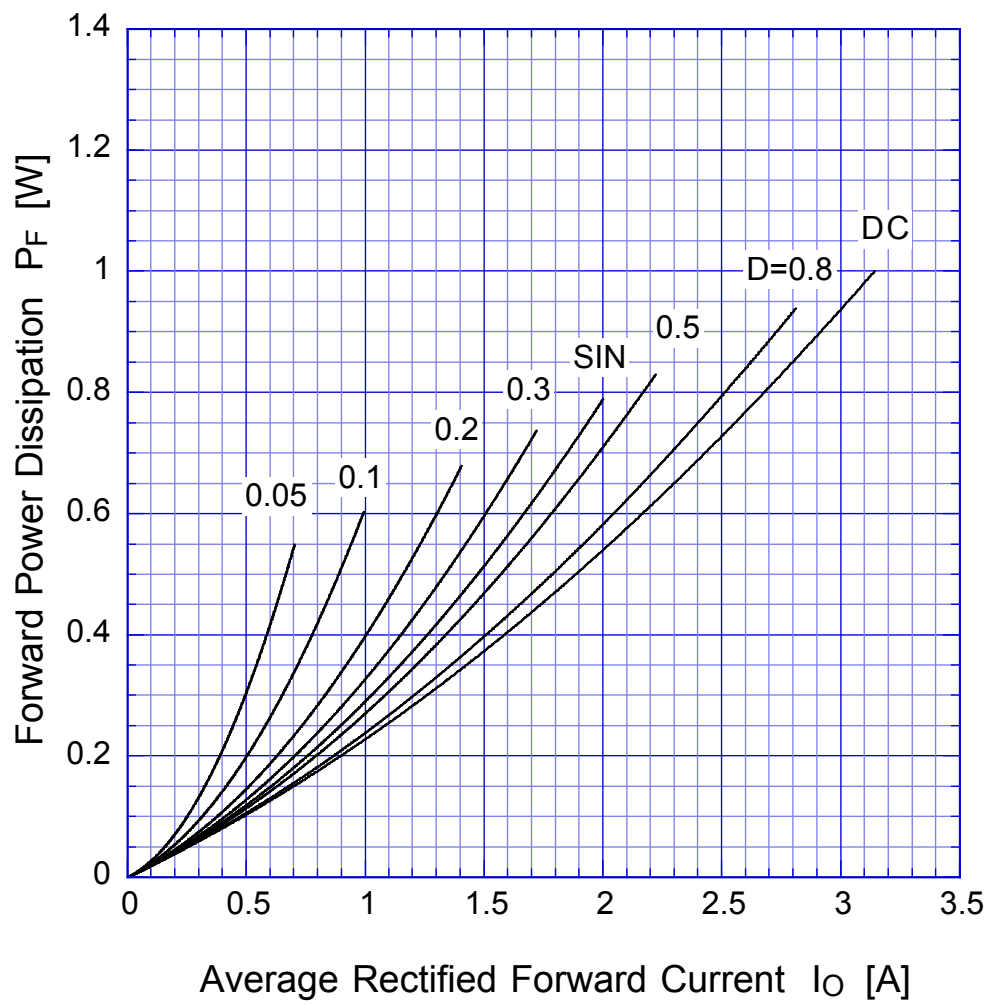


$T_j = 125^\circ\text{C}$



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Forward Power Dissipation

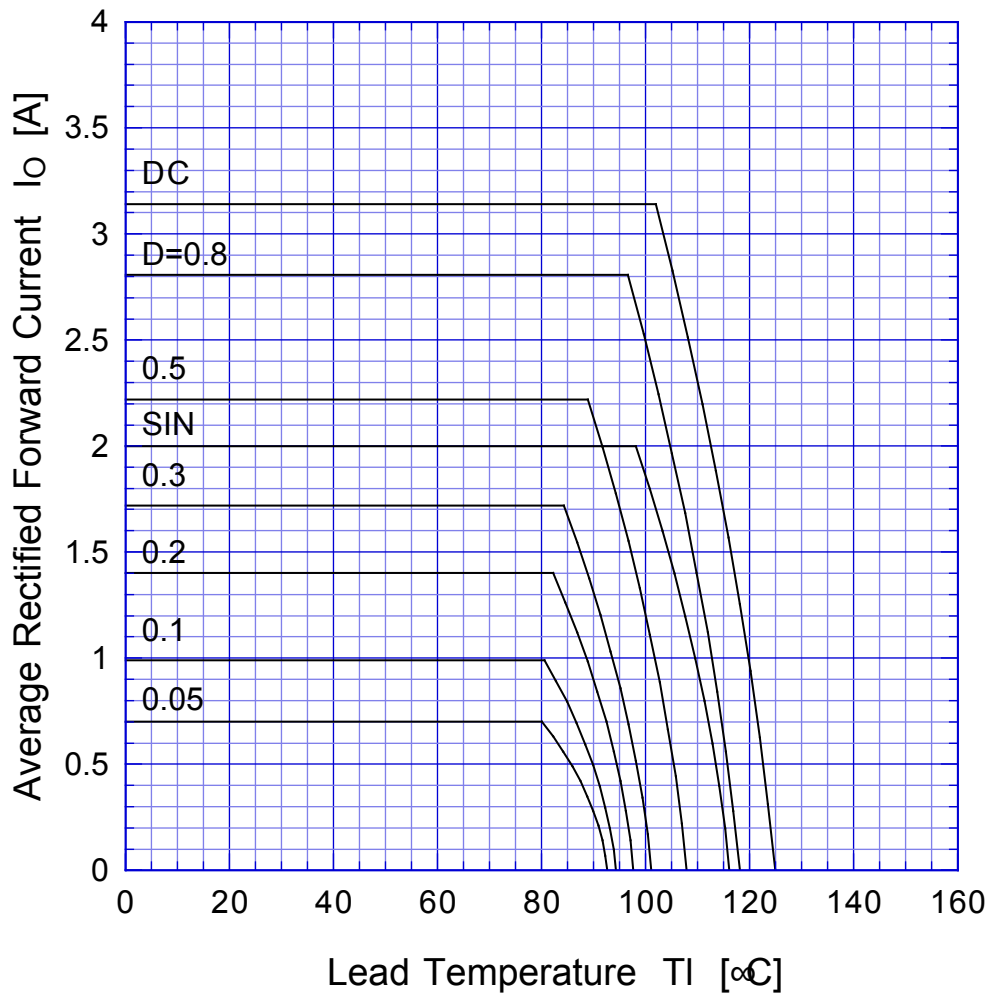


$T_j = 125^\circ\text{C}$

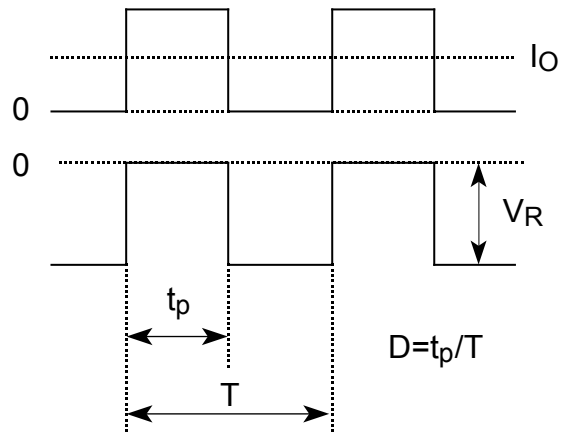


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Derating Curve



$V_R = 15V$



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Peak Surge Forward Capability

