

# SHINDENGEN

## Schottky Rectifiers (SBD)

Single

# D3FP3

## 30V 3A

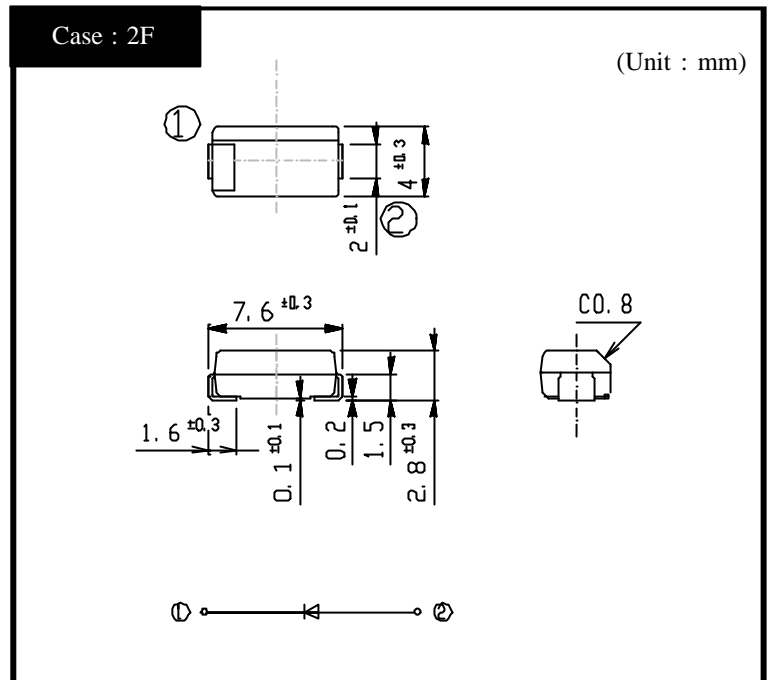
### FEATURES

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  $T_I=25$  )

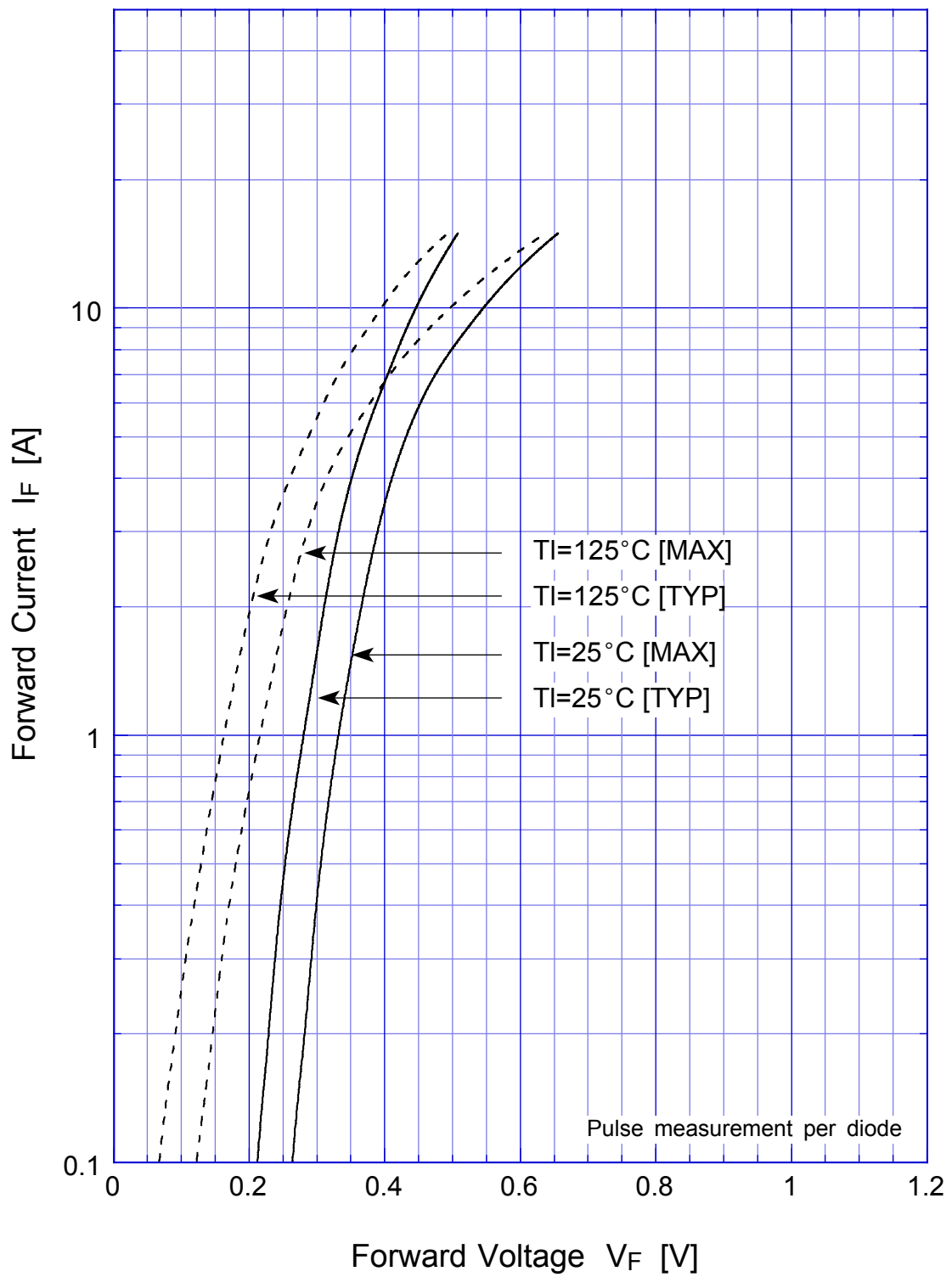
Item	Symbol	Conditions	Ratings	Unit
Storage Temperature	Tstg		-55 ~ 125	
Operating Junction Temperature	$T_j$		125	
Maximum Reverse Voltage	$V_{RM}$		30	V
Repetitive Peak Surge Reverse Voltage	$V_{RRSM}$	Pulse width 0.5ms, duty 1/40	35	V
Average Rectified Forward Current	$I_o$	50Hz sine wave, R-load $T_I=74$	3	A
Peak Surge Forward Current	$I_{FSM}$	50Hz sine wave, Non-repetitive 1 cycle peak value, $T_j=25$	150	A
Repetitive Peak Surge Reverse Power	$P_{RRSM}$	Pulse width 10 $\mu$ s, $T_I=25$	1	kW

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

Item	Symbol	Conditions	Ratings	Unit
Forward Voltage	$V_{F1}$	$I_F=1.6A$ , Pulse measurement	Max.0.35	V
	$V_{F2}$	$I_F=4A$ , Pulse measurement	Max.0.40	V
Reverse Current	$I_R$	$V_R=V_{RM}$ , Pulse measurement	Max.10	mA
Junction Capacitance	$C_j$	$f=1MHz$ , $V_R=10V$	Typ.300	pF
Thermal Resistance	$\theta_l$	junction to lead	Max.24	/W
	$\theta_a$	junction to ambient On alumina substrate	Max.90	
		junction to ambient On glass-epoxy substrate	Max.120	

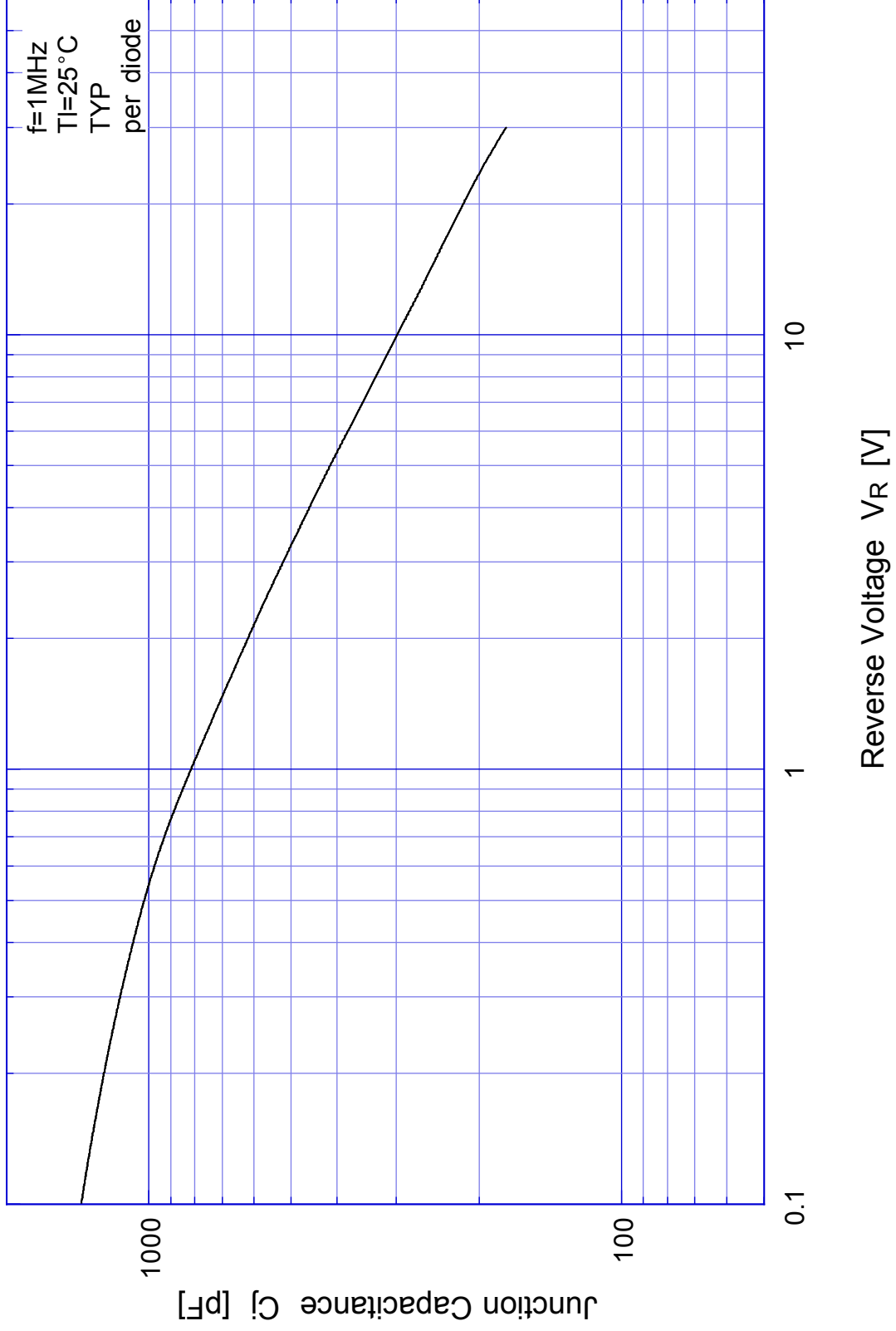
# D3FP3

## Forward Voltage



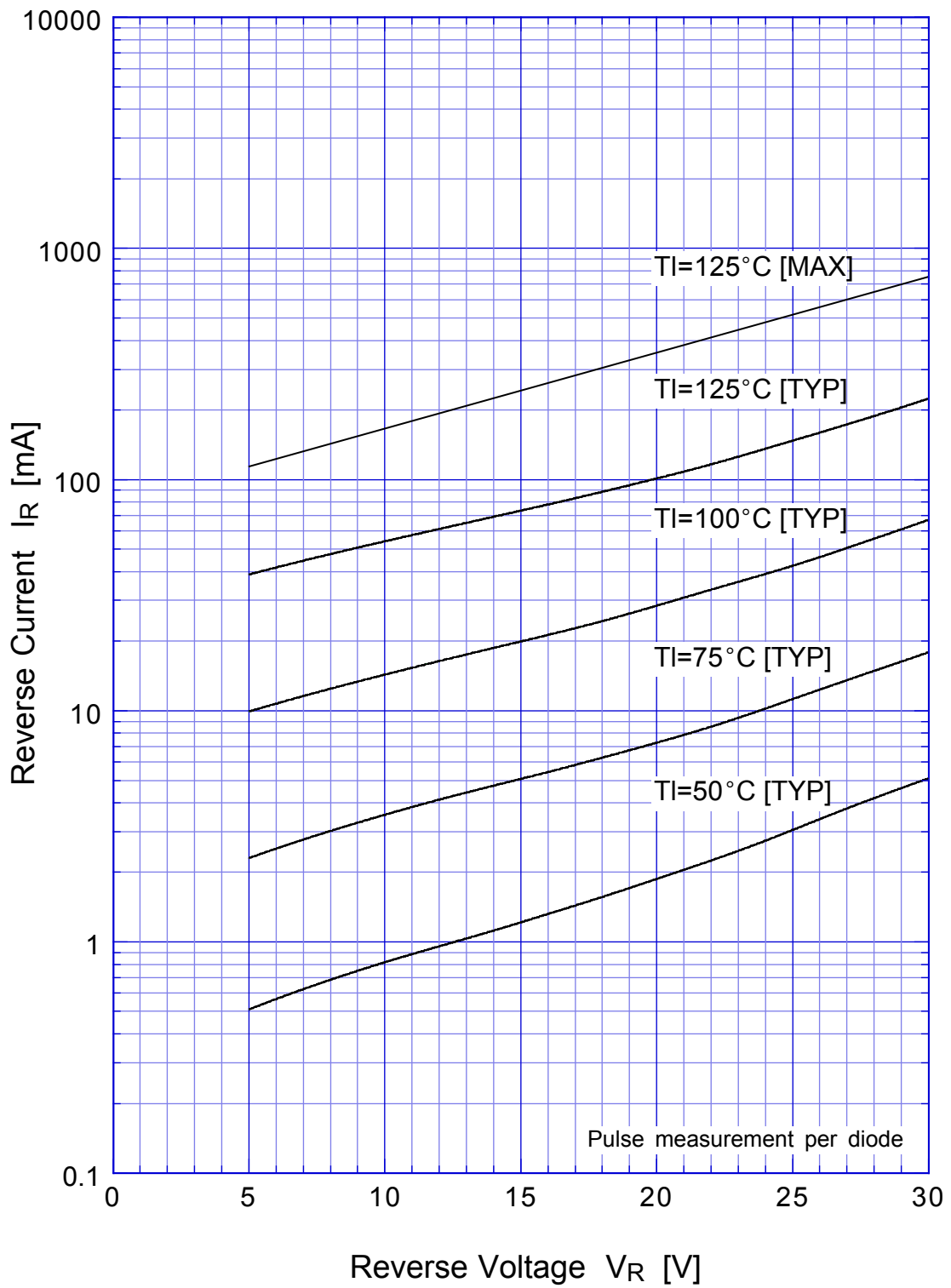
# D3FP3

## Junction Capacitance



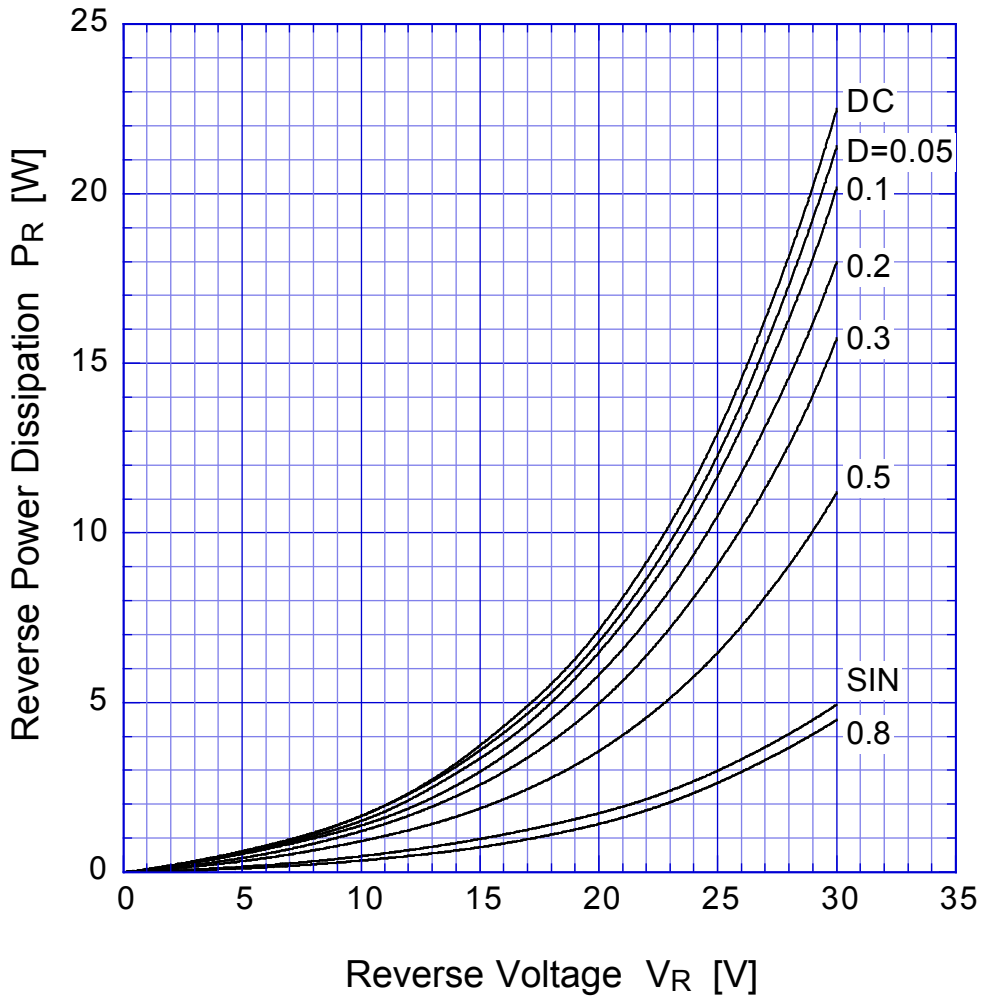
# D3FP3

# Reverse Current

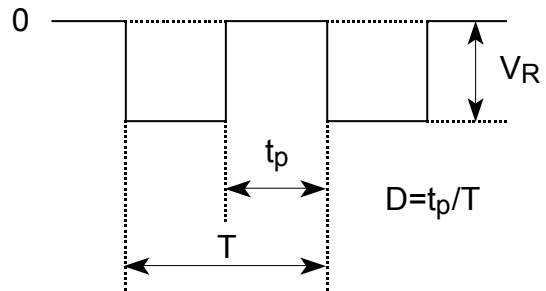


# D3FP3

## Reverse Power Dissipation

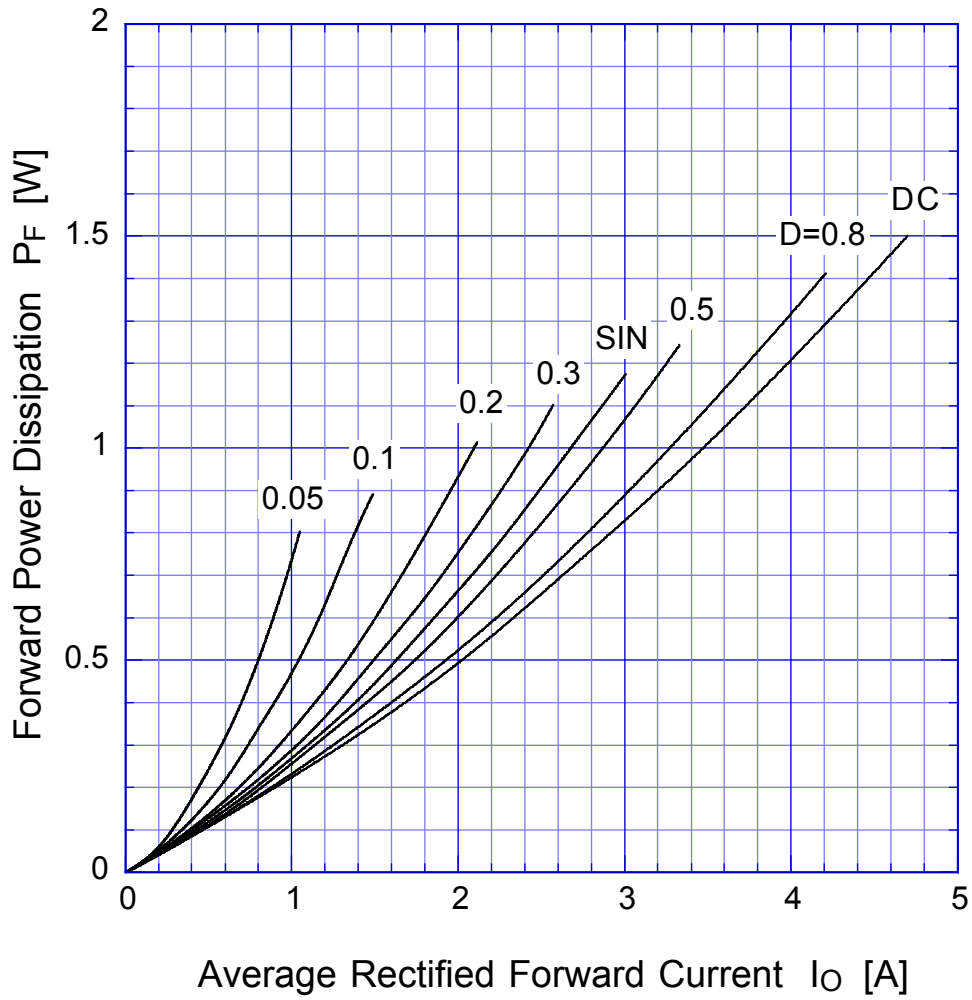


$T_j = 125^\circ\text{C}$

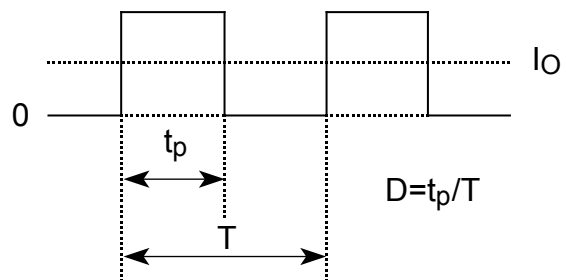


# D3FP3

## Forward Power Dissipation

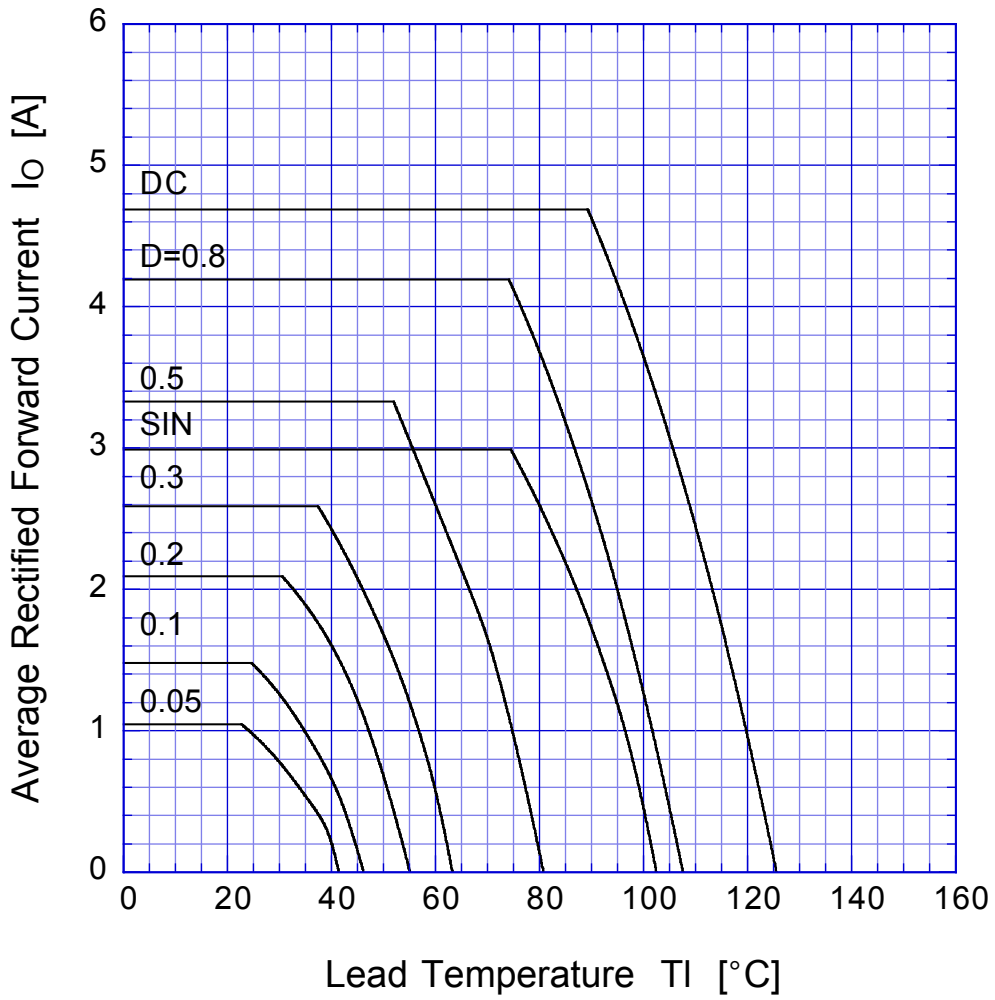


$T_j = 125^\circ\text{C}$



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# Derating Curve



$V_R = 15V$



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## Peak Surge Forward Capability

