

DF40PC3

30V 40A

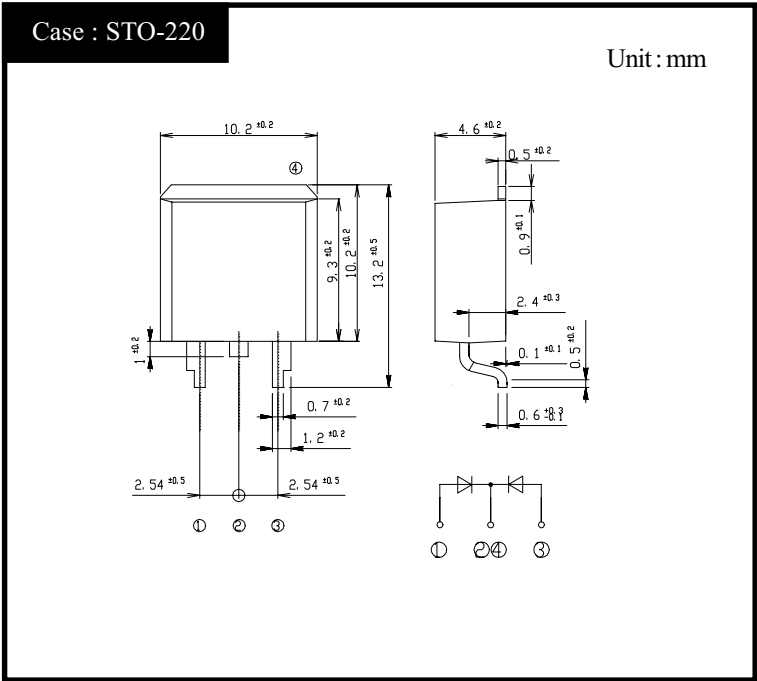
FEATURES

- SMT
- Super low $V_F=0.4V$
- High current capacity with Small Package

APPLICATION

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

OUTLINE DIMENSIONS



RATINGS

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

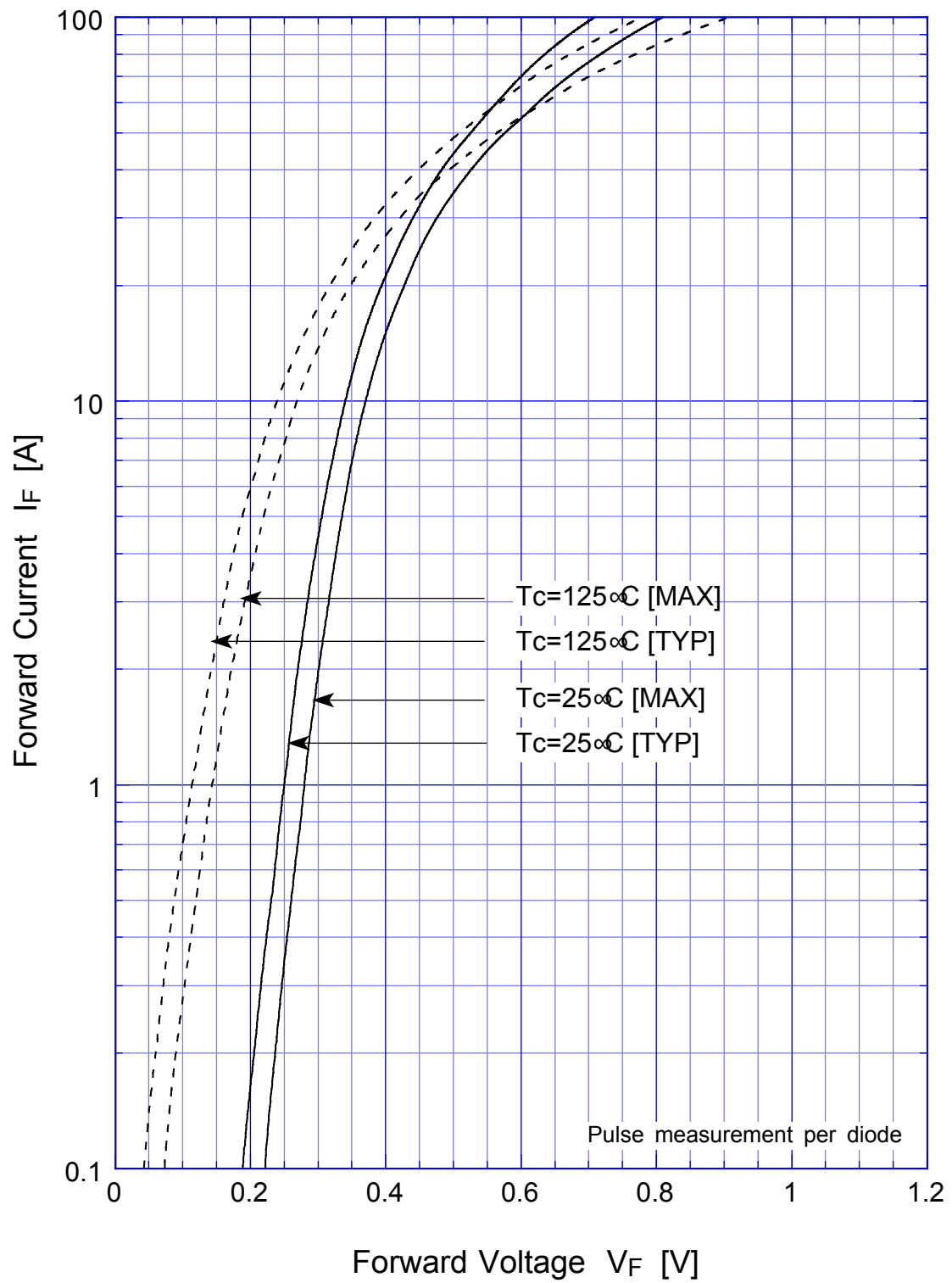
Item	Symbol	Conditions	Ratings	Unit
Storage Temperature	T_{stg}		-55~125	$^{\circ}C$
Operating Junction Temperature	T_j		125	$^{\circ}C$
Maximum Reverse Voltage	V_{RM}		30	V
Repetitive Peak Surge Reverse Voltage	V_{RRSM}	Pulse width 0.5ms, duty 1/40	35	V
Average Rectified Forward Current	I_o	50Hz sine wave, R-load, Rating for each diode $I_o/2$, $T_c=105^{\circ}C$	40	A
Peak Surge Forward Current	I_{FSM}	50Hz sine wave, Non-repetitive 1 cycle peak value, $T_j=25^{\circ}C$	350	A

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

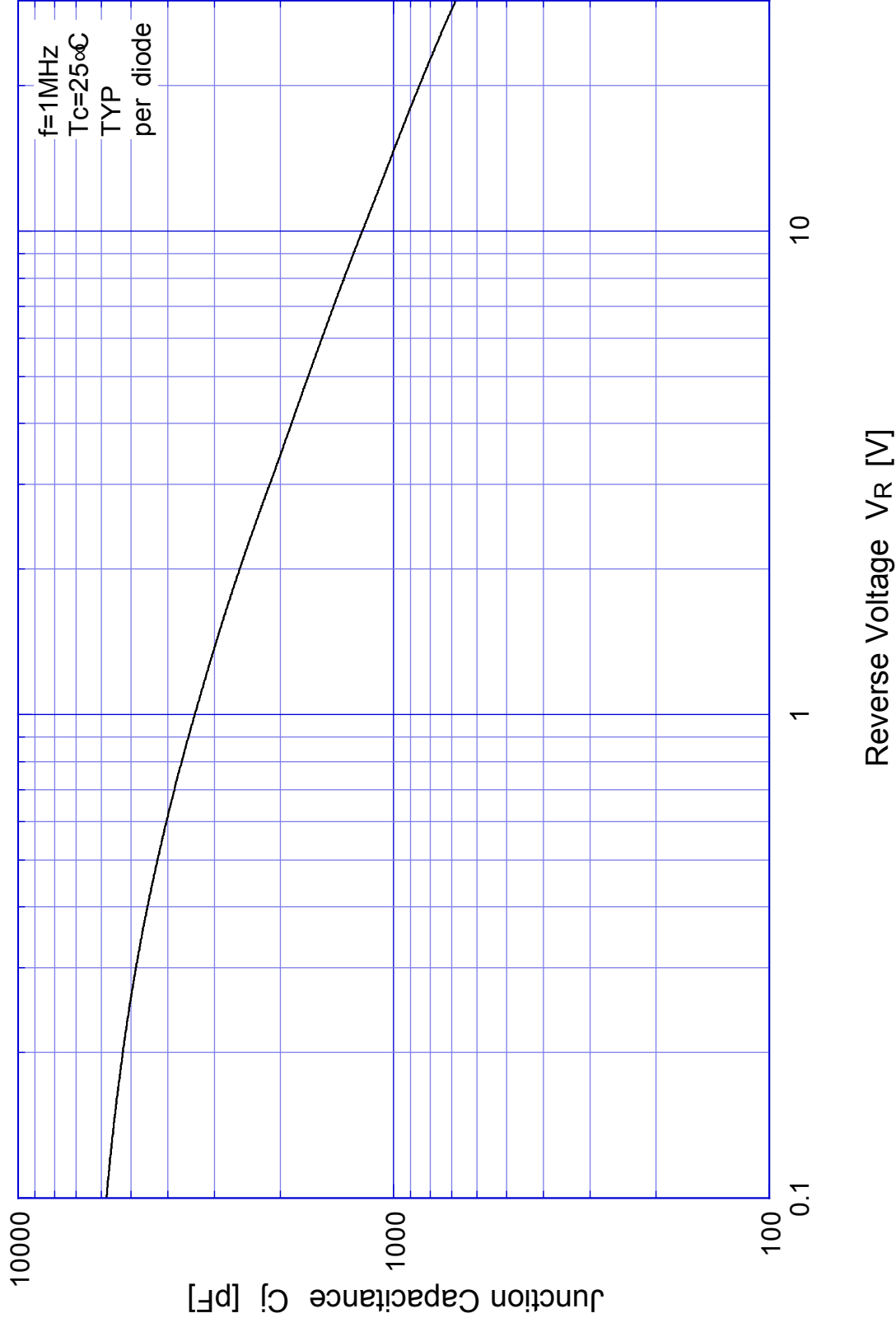
Item	Symbol	Conditions	Ratings	Unit
Forward Voltage	V_F	$I_F=15A$, Pulse measurement, Rating of per diode	Max.0.4	V
Reverse Current	I_R	$V_R=V_{RM}$, Pulse measurement, Rating of per diode	Max.45	mA
Junction Capacitance	C_j	$f=1MHz$, $V_R=10V$, Rating of per diode	Typ.1160	pF
Thermal Resistance	θ_{jc}	junction to case	Max.0.8	$^{\circ}C/W$

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Forward Voltage

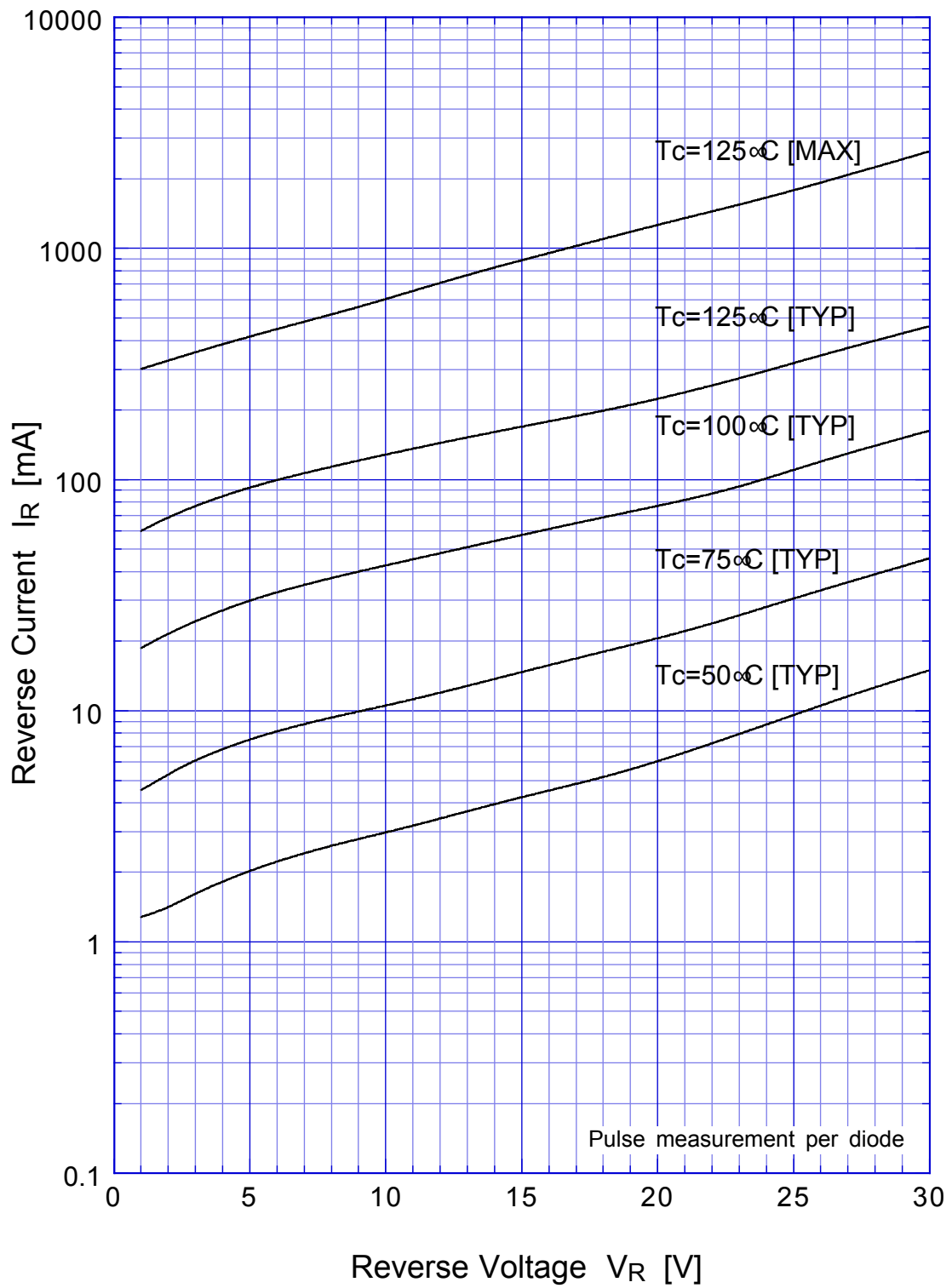


DF40PC3 Junction Capacitance

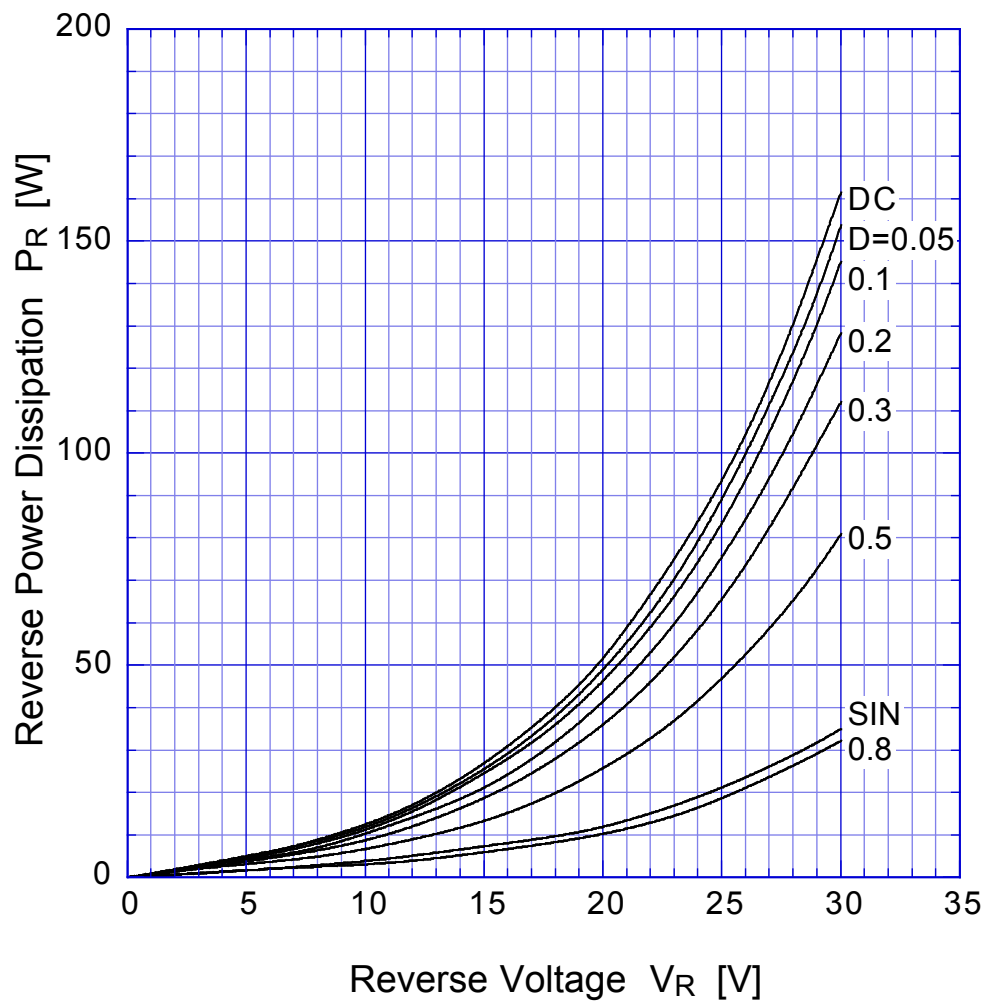


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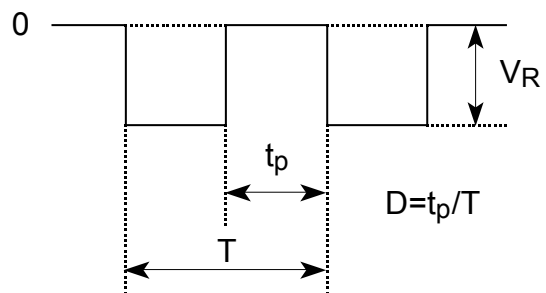
Reverse Current



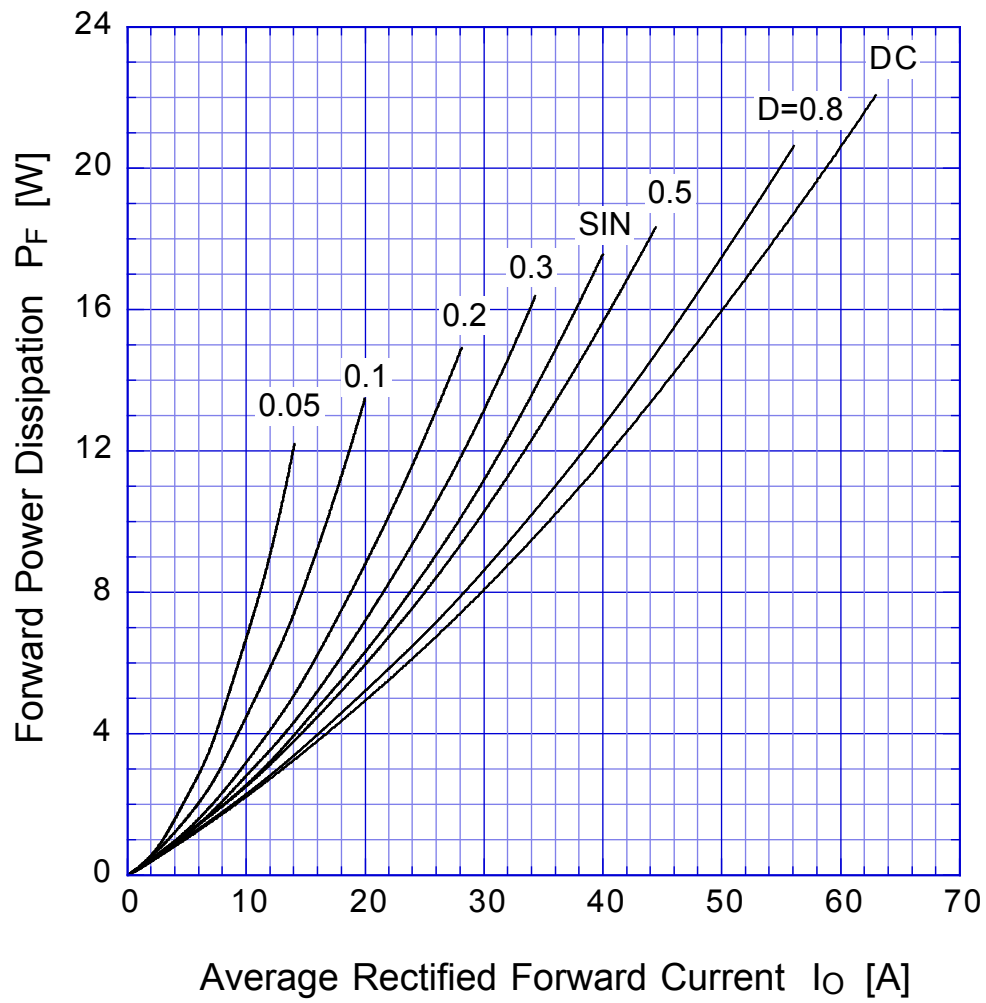
DF40PC3 Reverse Power Dissipation



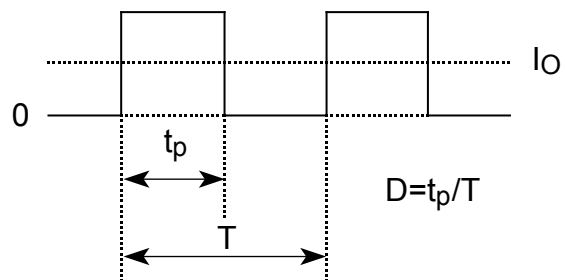
$T_j = 125^\circ\text{C}$



DF40PC3 Forward Power Dissipation

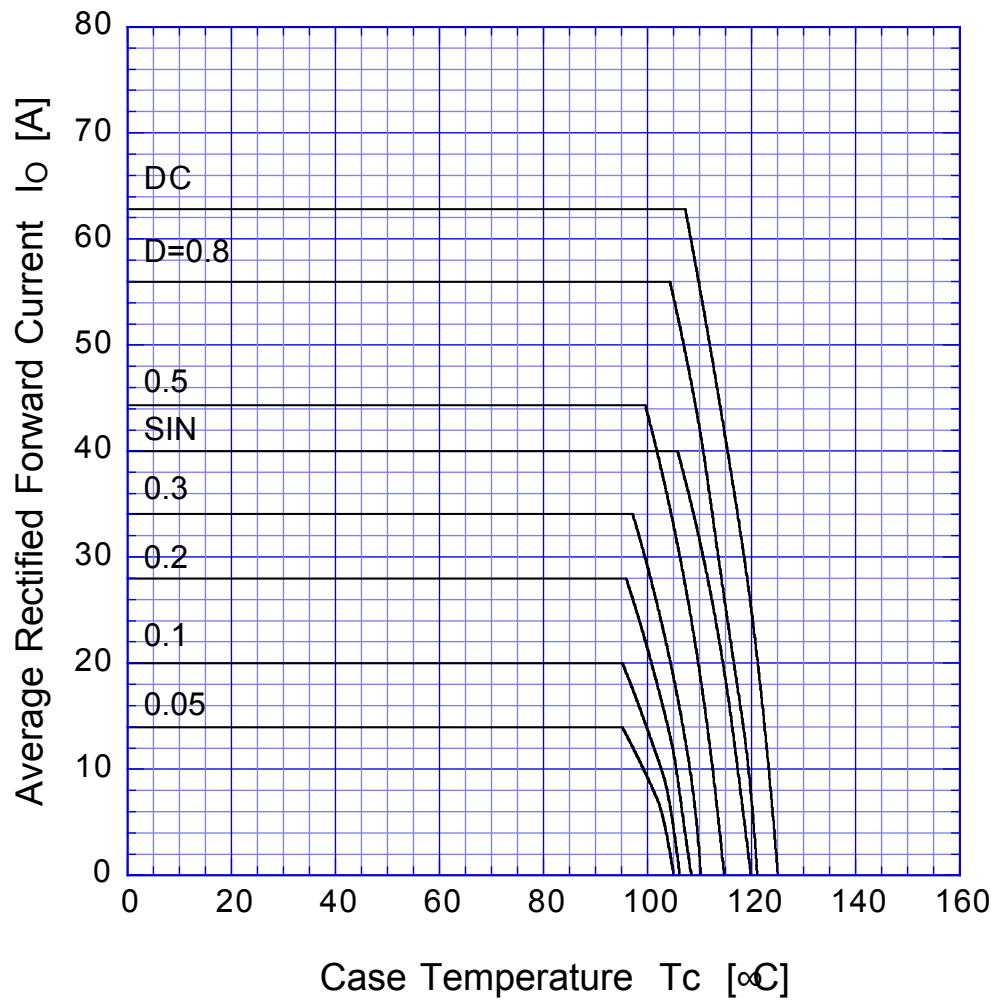


$T_j = 125^\circ\text{C}$

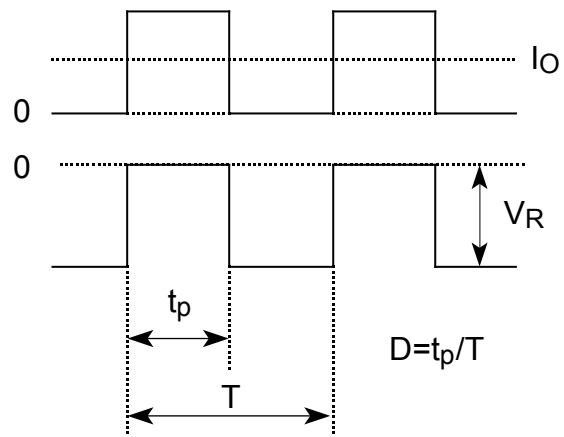


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Derating Curve



$V_R = 15V$



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Peak Surge Forward Capability

