

D10SC4M

40V 10A

FEATURES

- $T_j 150^{\circ}\text{C}$
- P_{RRSM} avalanche guaranteed
- Fully Isolated Molding

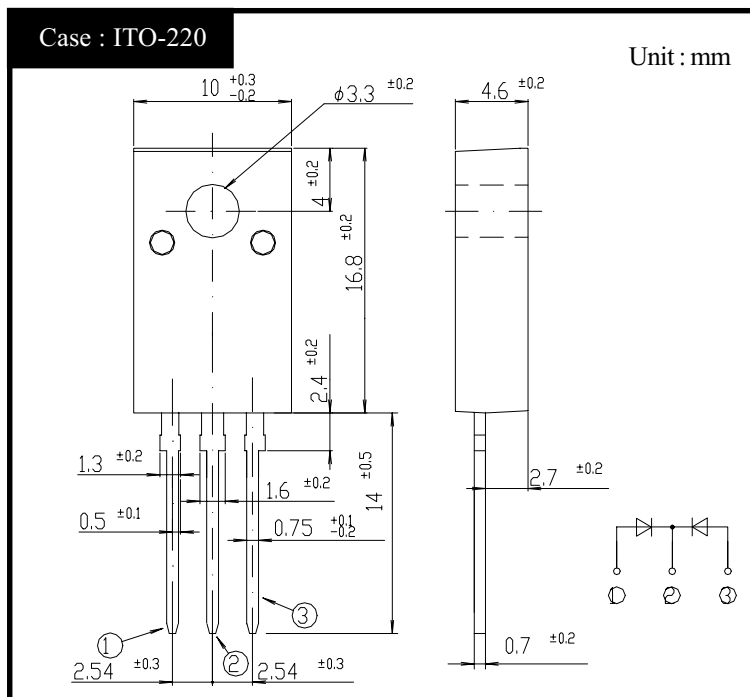
APPLICATION

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

OUTLINE DIMENSIONS

Case : ITO-220

Unit : mm



RATINGS

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

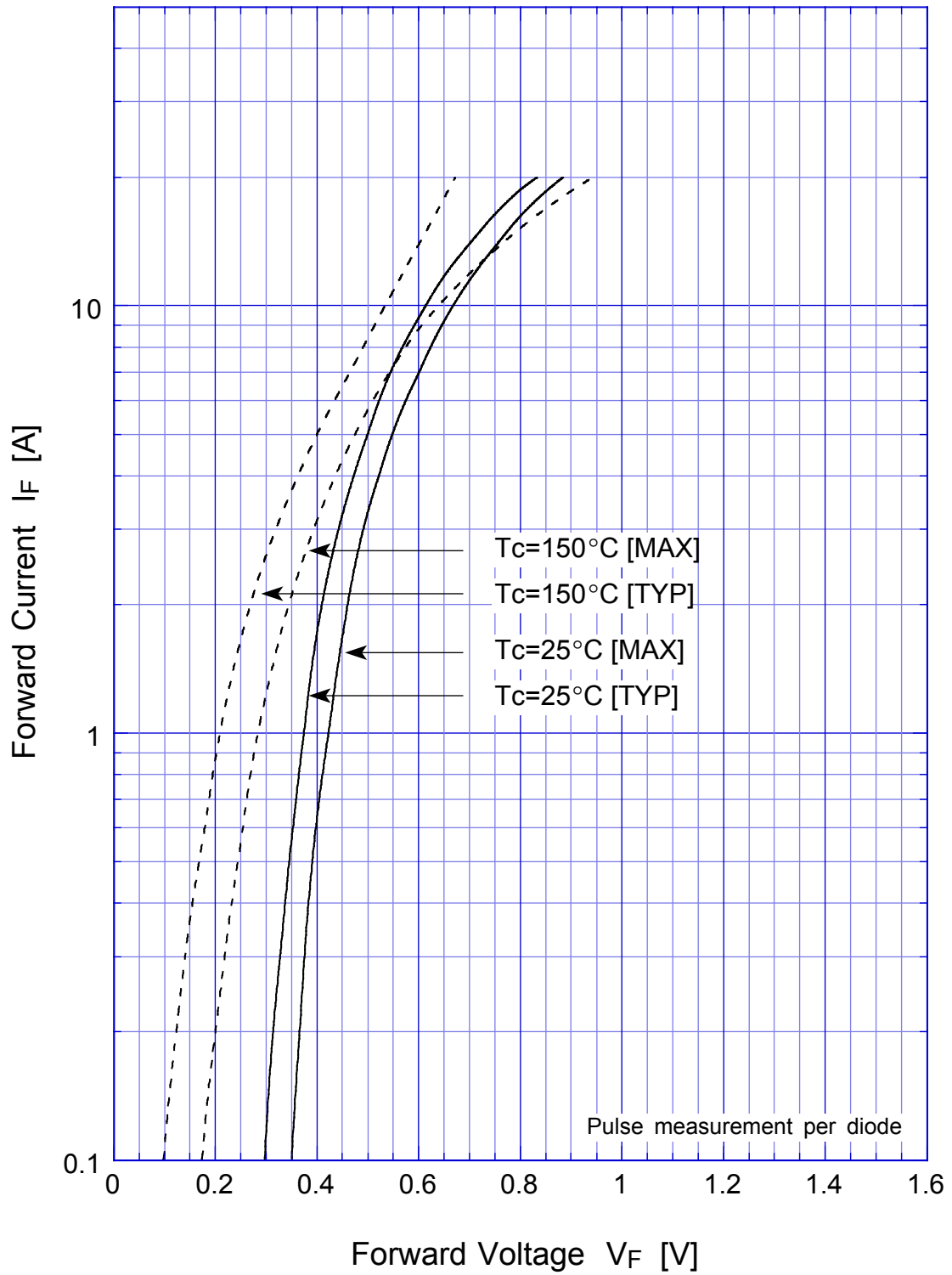
Item	Symbol	Conditions	Ratings	Unit
Storage Temperature	T_{stg}		-40~150	$^{\circ}\text{C}$
Operating Junction Temperature	T_j		150	$^{\circ}\text{C}$
Maximum Reverse Voltage	V_{RM}		40	V
Repetitive Peak Surge Reverse Voltage	V_{RRSM}	Pulse width 0.5ms, duty 1/40	45	V
Average Rectified Forward Current	I_O	50Hz sine wave, R-load, Rating for each diode $I_O/2$, $T_c=123^{\circ}\text{C}$	10	A
Peak Surge Forward Current	I_{FSM}	50Hz sine wave, Non-repetitive 1 cycle peak value, $T_j=125^{\circ}\text{C}$	100	A
Repetitive Peak Surge Reverse Power	P_{RRSM}	Pulse width 10 μ s, Rating of per diode, $T_j=25^{\circ}\text{C}$	330	W
Dielectric Strength	V_{dis}	Terminals to case, AC 1 minute	1.5	kV
Mounting Torque	TOR	(Recommended torque: 0.3N·m)	0.5	N·m

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

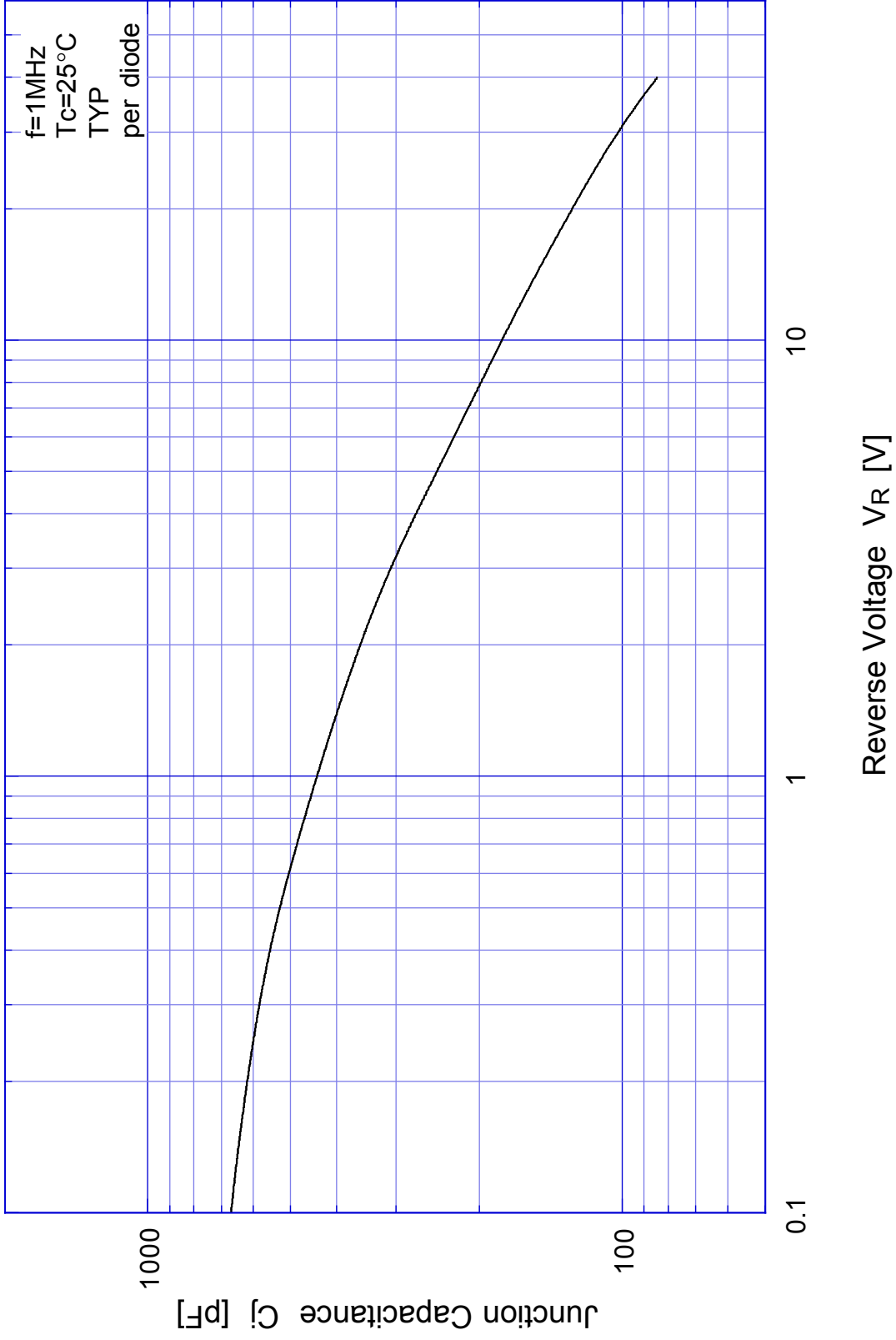
Item	Symbol	Conditions	Ratings	Unit
Forward Voltage	V_F	$I_F=5A$, Pulse measurement, Rating of per diode	Max 0.55	V
Reverse Current	I_R	$V_R=V_{RM}$, Pulse measurement, Rating of per diode	Max 3.5	mA
Junction Capacitance	C_j	$f=1MHz$, $V_R=10V$, Rating of per diode	Typ 180	pF
Thermal Resistance	θ_{jc}	junction to case	Max 3.3	$^{\circ}\text{C}/W$
	θ_{jf}	junction to heatsink (reference value)	Max 4.8	

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Forward Voltage

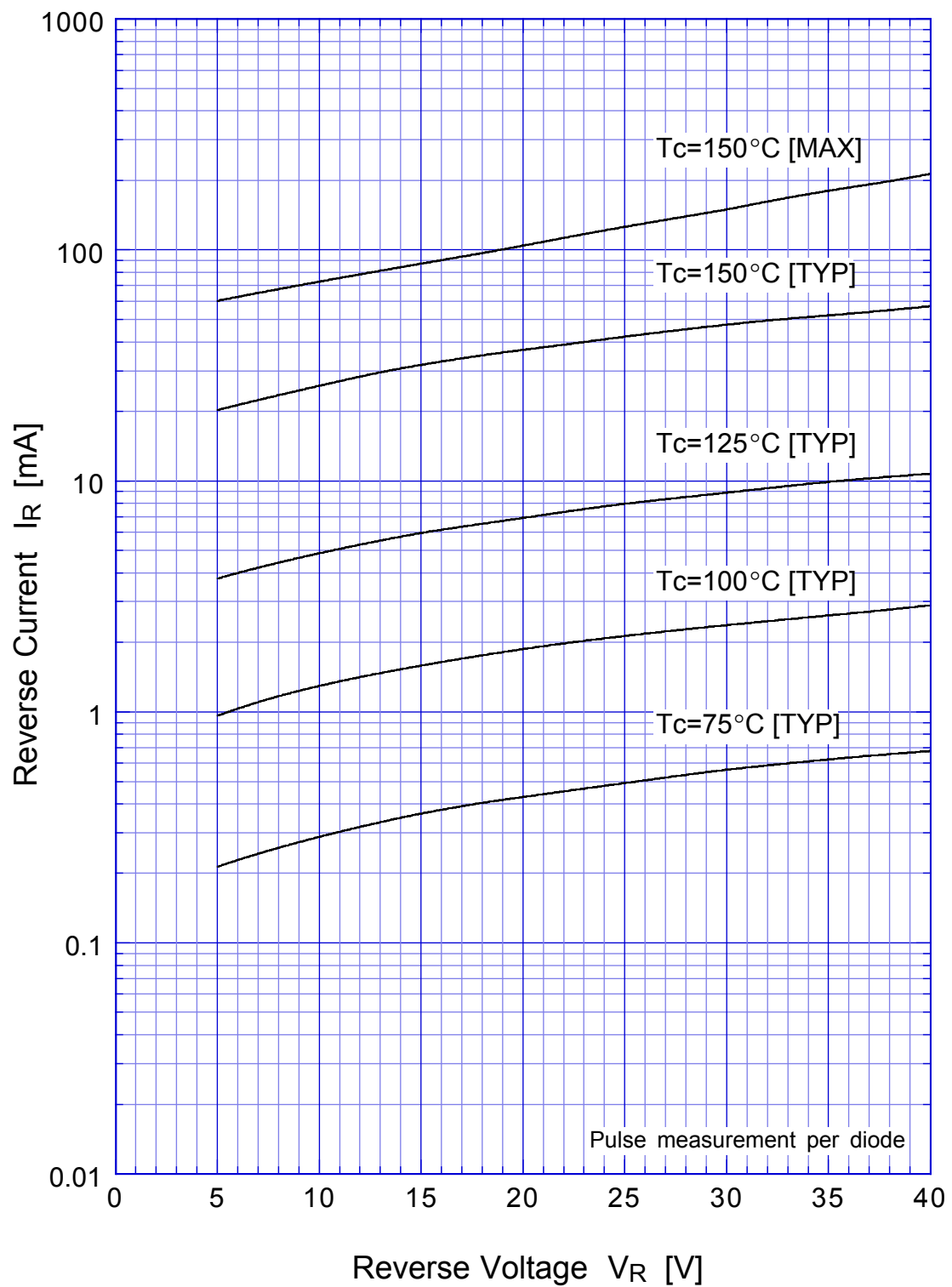


D10SC4M Junction Capacitance

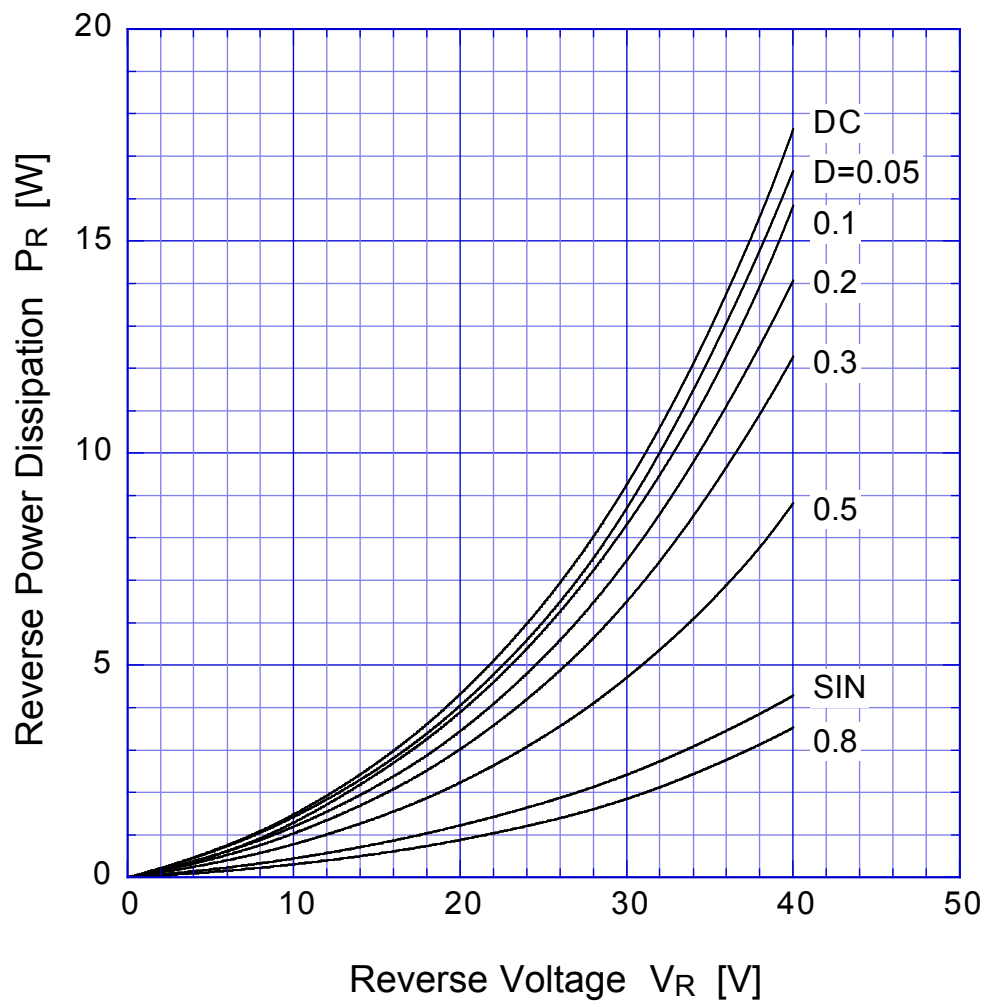


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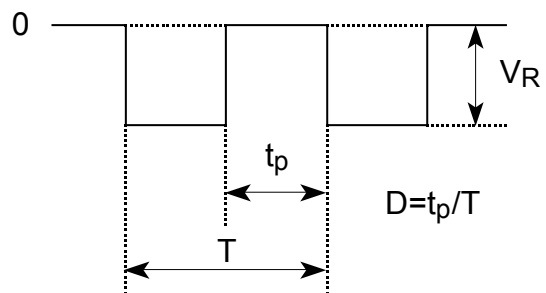
Reverse Current



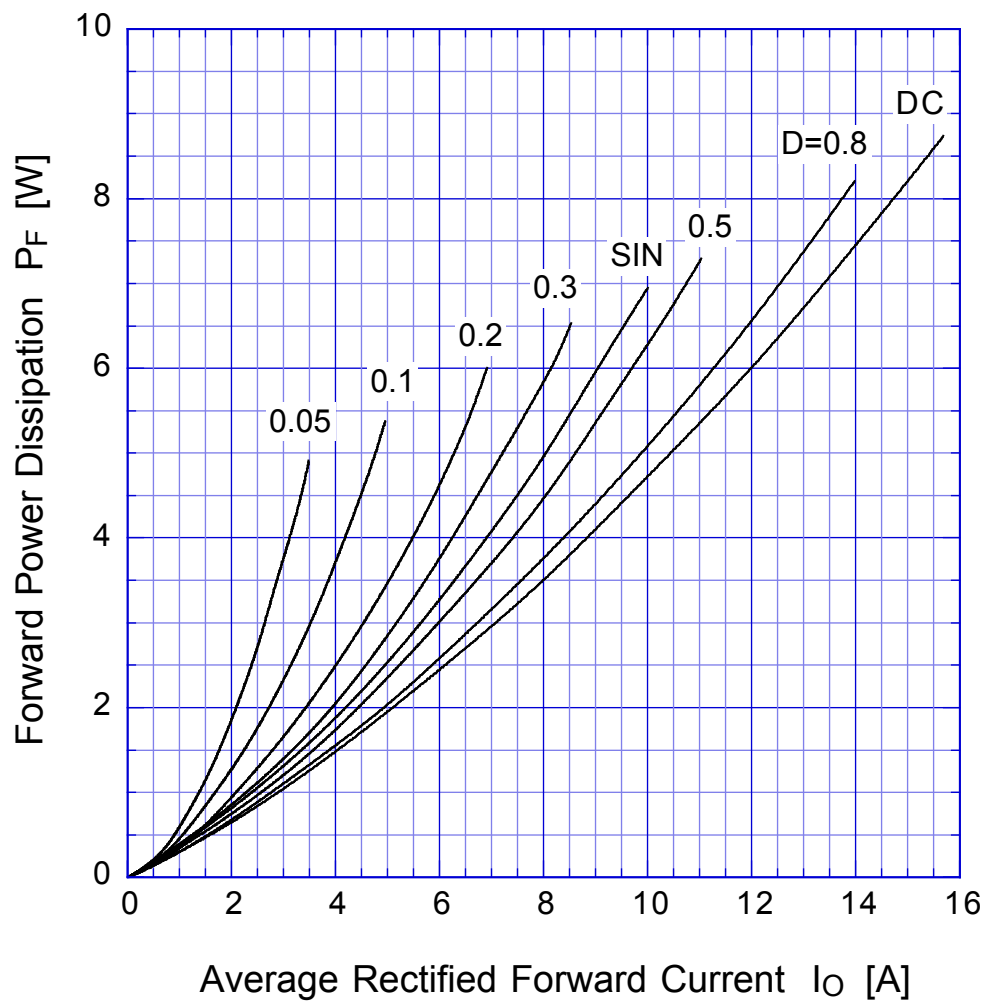
D10SC4M Reverse Power Dissipation



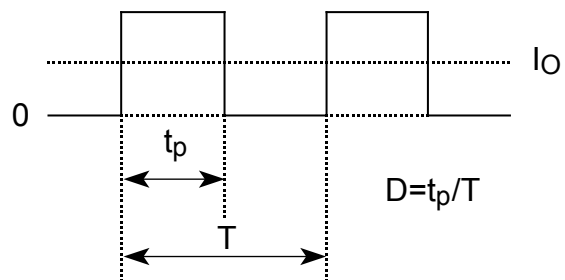
$T_j = 150^\circ\text{C}$



D10SC4M Forward Power Dissipation

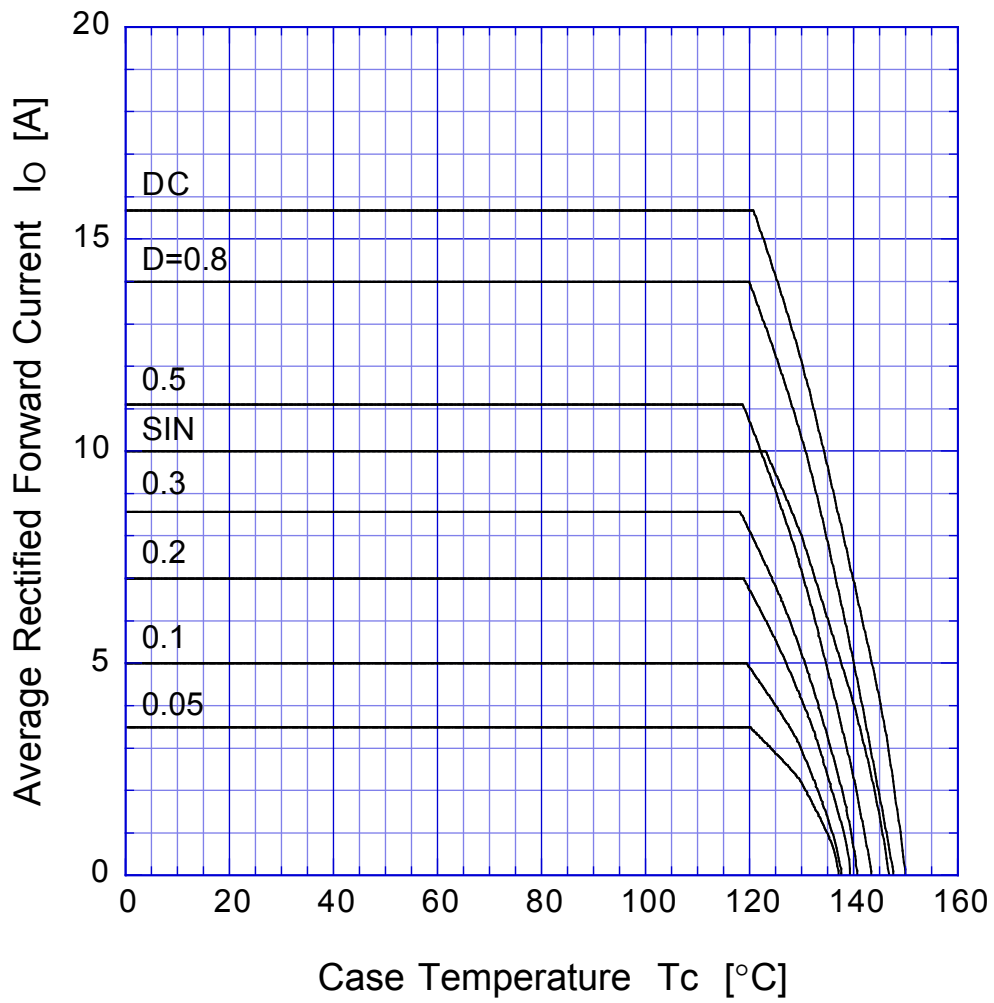


$T_j = 150^\circ\text{C}$

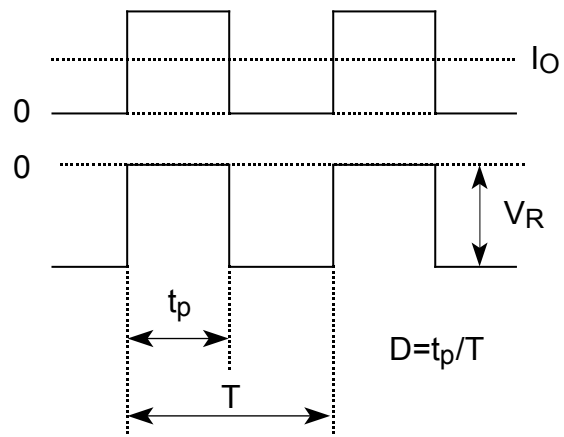


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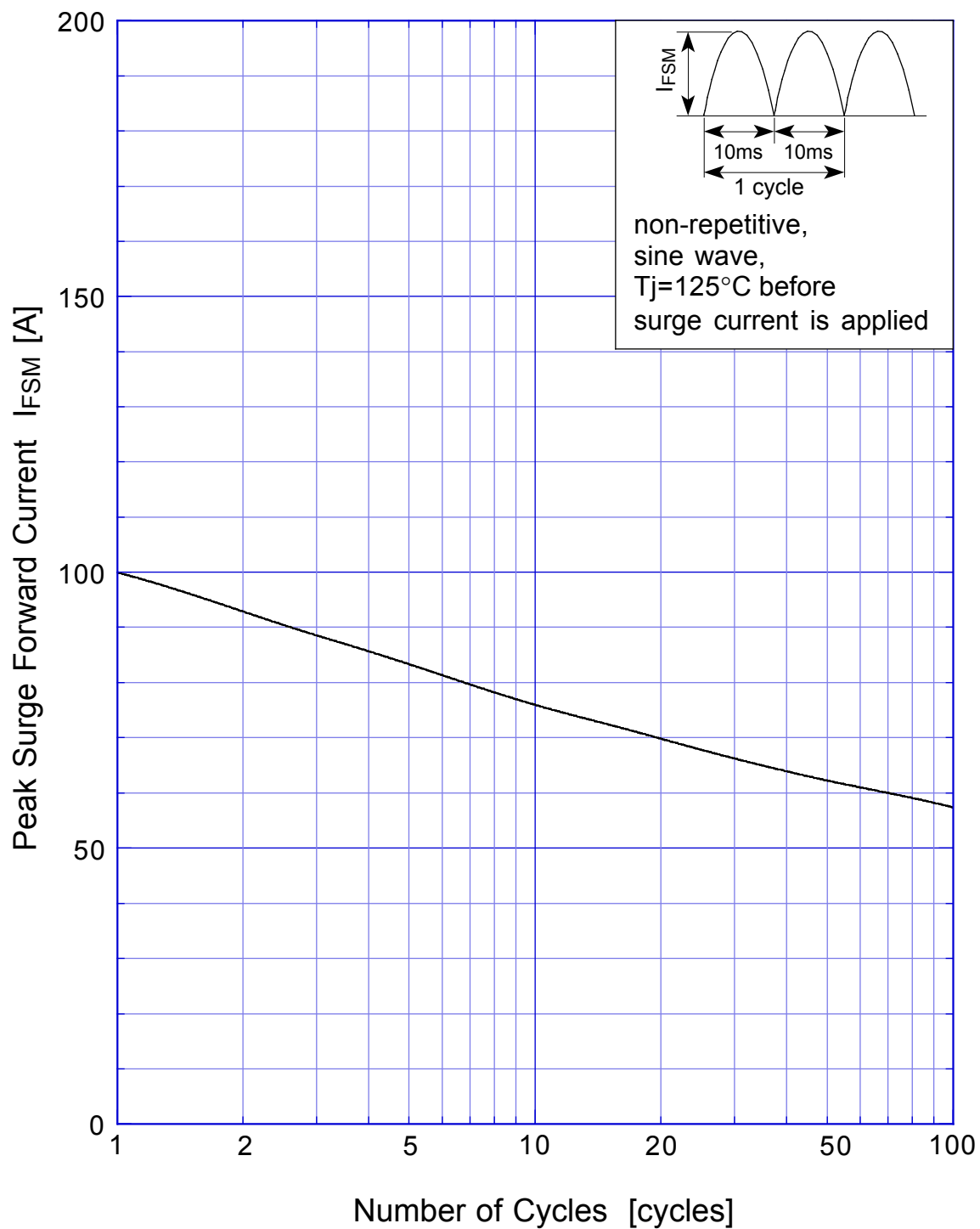
Derating Curve



$V_R = 20V$



D10SC4M Peak Surge Forward Capability



SBD Repetitive Surge Reverse Power Derating Curve

