

SHINDENGEN

Schottky Rectifiers (SBD)

Dual

D10SC4MR

40V 10A

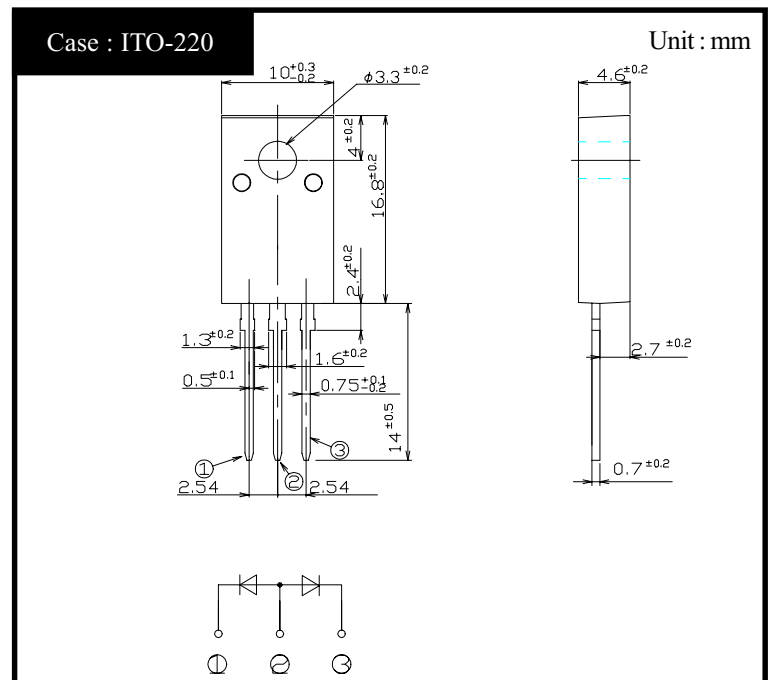
FEATURES

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

APPLICATION

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

OUTLINE DIMENSIONS



RATINGS

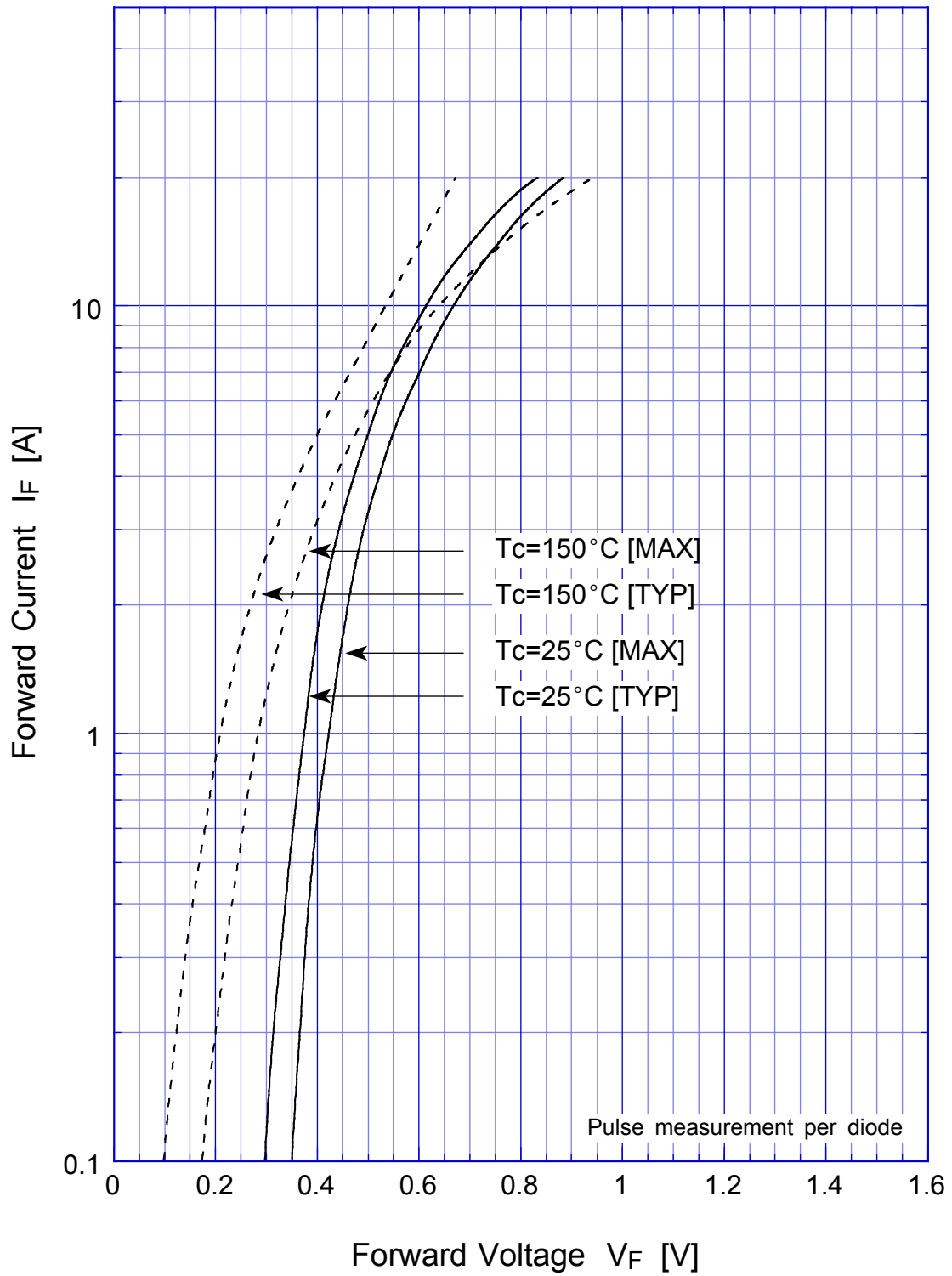
● Absolute Maximum Ratings (If not specified $T_c=25^{\circ}\text{C}$)

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 $10\mu\text{s}$, 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: $0.3\text{N}\cdot\text{m}$)	0.5	$\text{N}\cdot\text{m}$

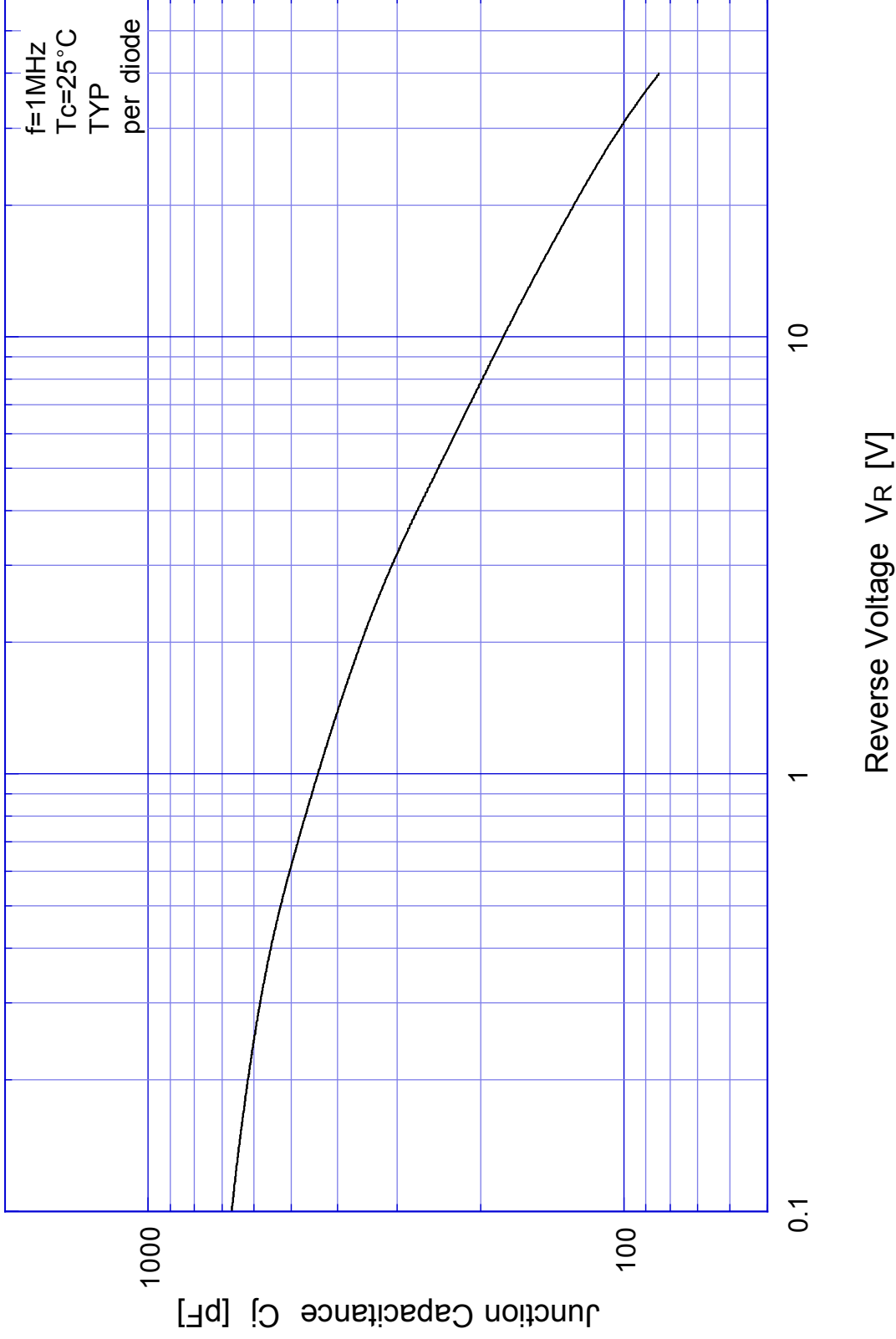
● Electrical Characteristics (If not specified $T_c=25^{\circ}\text{C}$)

Item	Symbol	Conditions	Ratings	Unit
Forward Voltage	V_F	$I_F=5\text{A}$, 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	$f=1\text{MHz}$, $V_R=10\text{V}$, Rating of per diode	Typ.180	pF
Thermal Resistance	θ_{jc}	junction to case	Max.3.3	$^{\circ}\text{C}/\text{W}$
	θ_{cf}	case to heatsink, Mounting torque= $0.5\text{N}\cdot\text{m}$	Max.1.5	

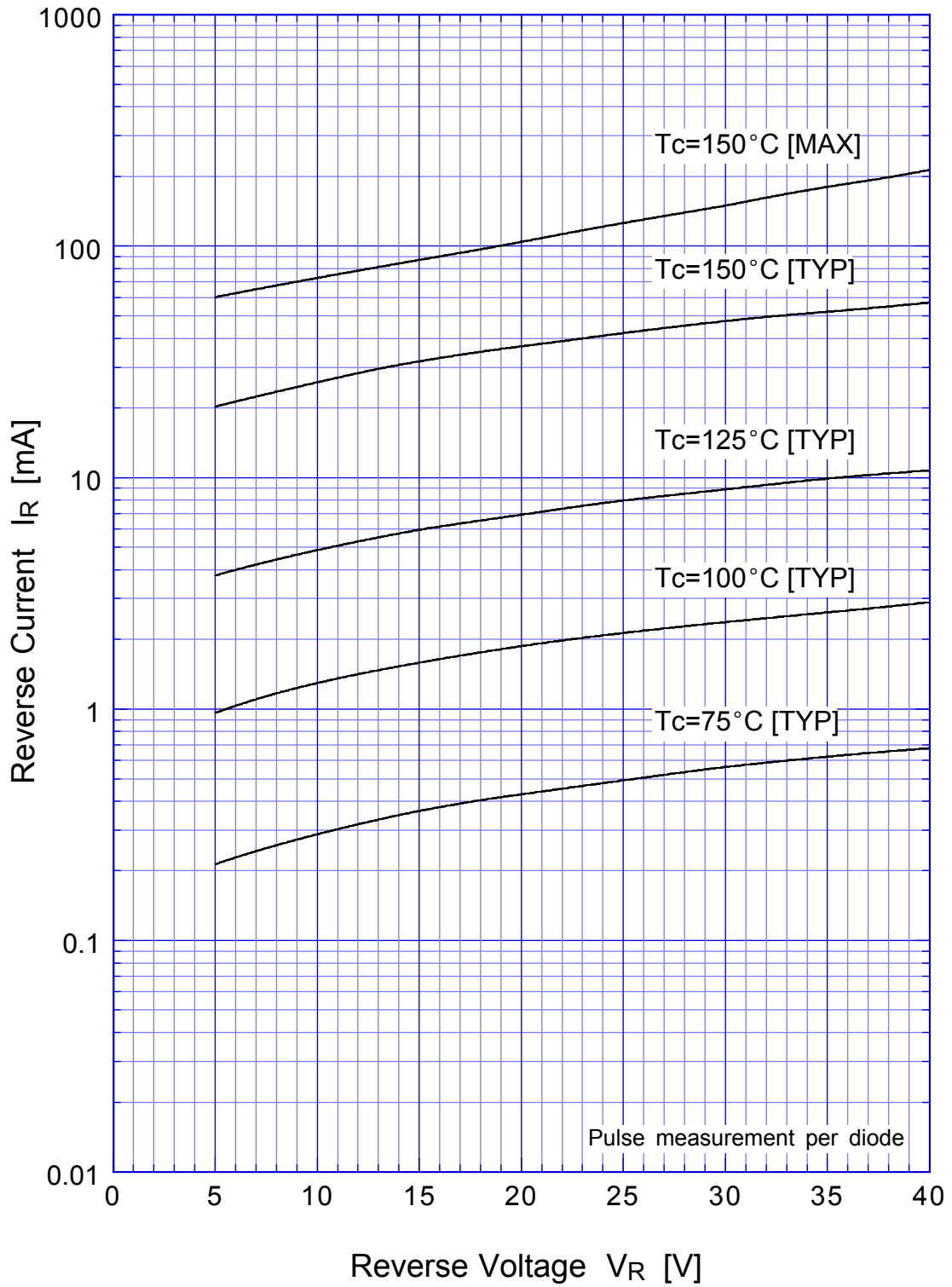
D10SC4MR Forward Voltage



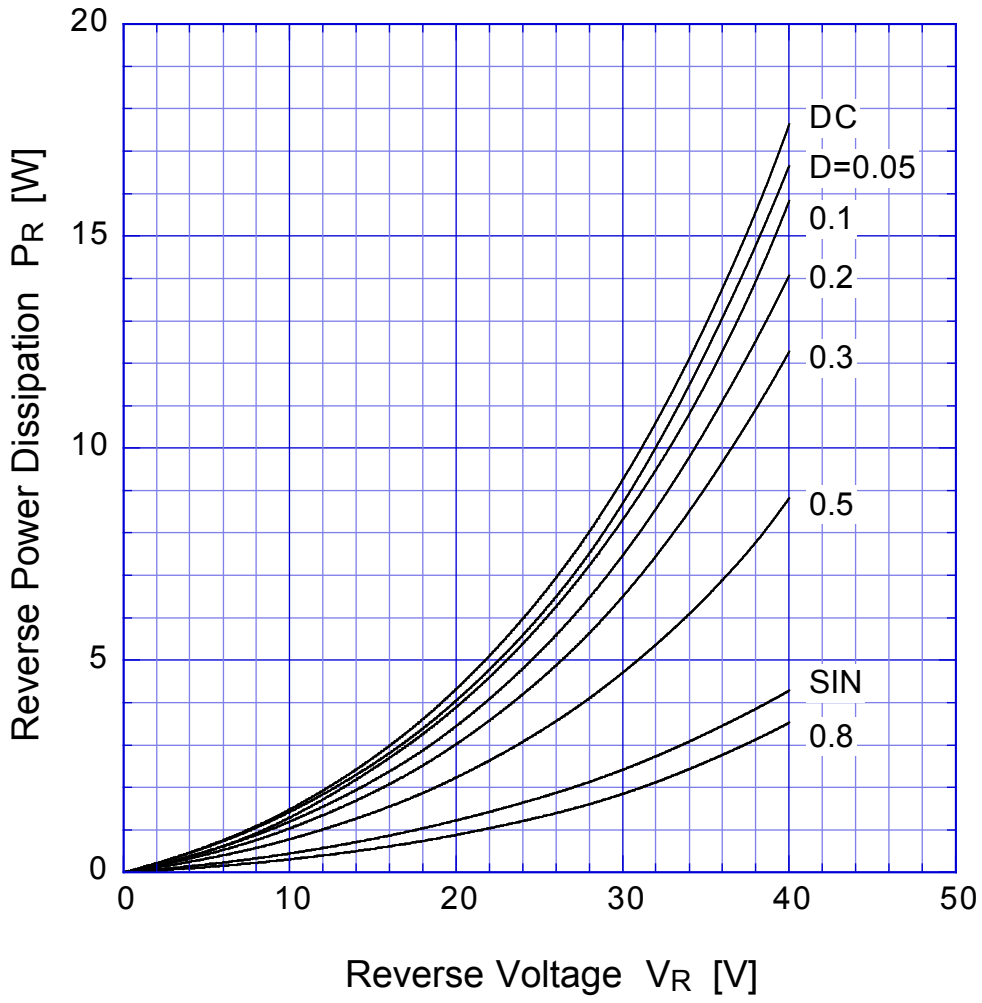
D10SC4MR Junction Capacitance



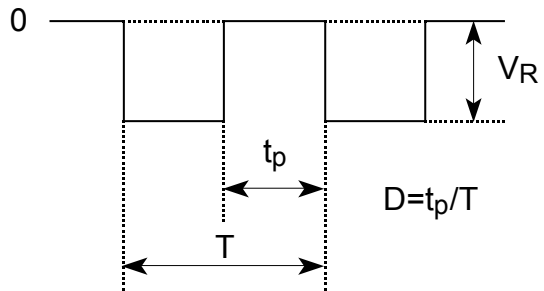
D10SC4MR Reverse Current



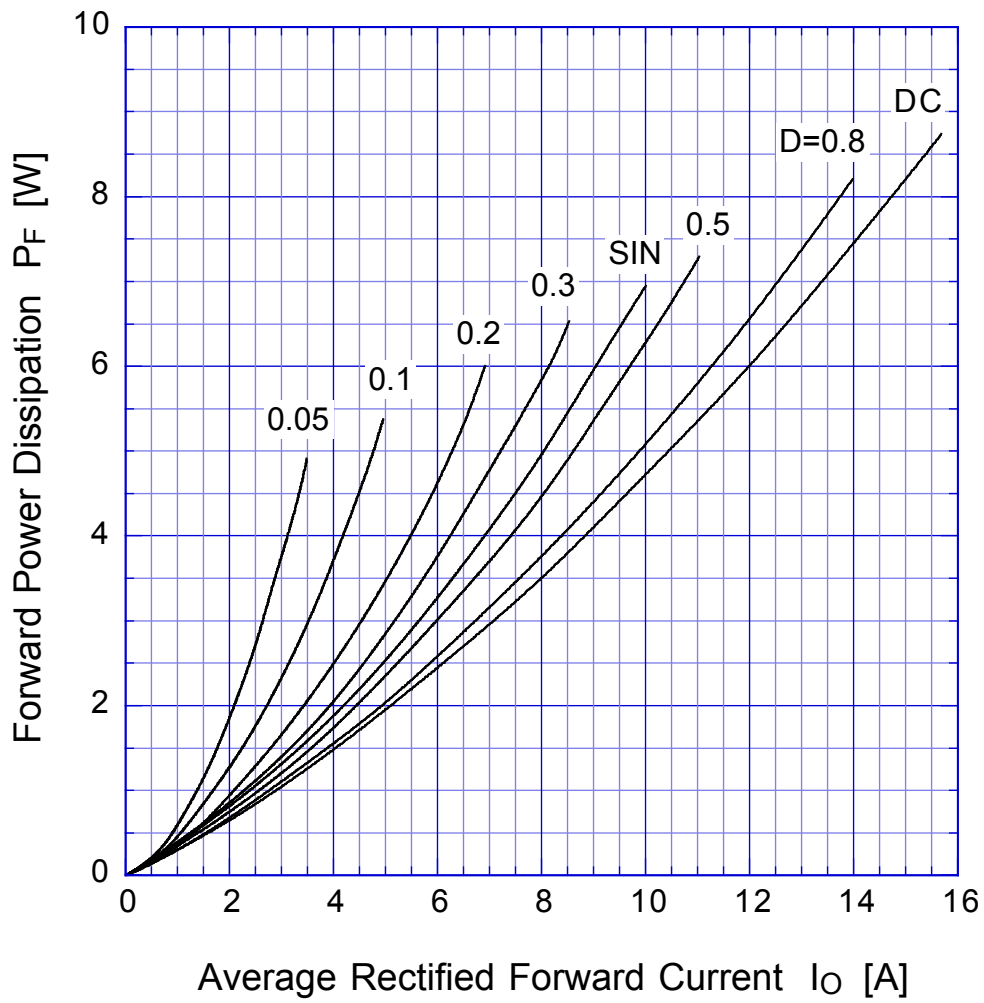
D10SC4MR Reverse Power Dissipation



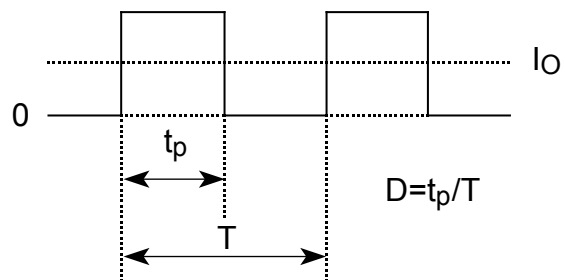
$T_j = 150^\circ\text{C}$



D10SC4MR Forward Power Dissipation

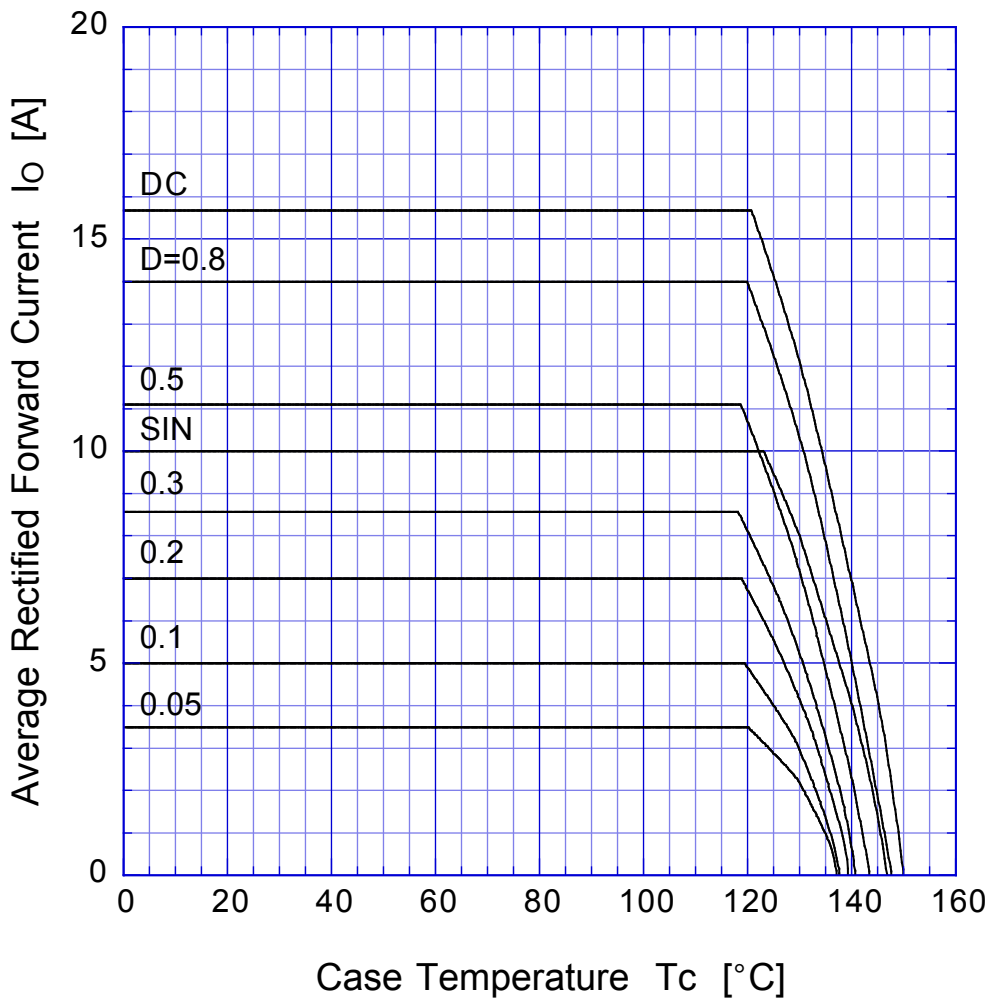


$T_j = 150^\circ\text{C}$



D10SC4MR

Derating Curve

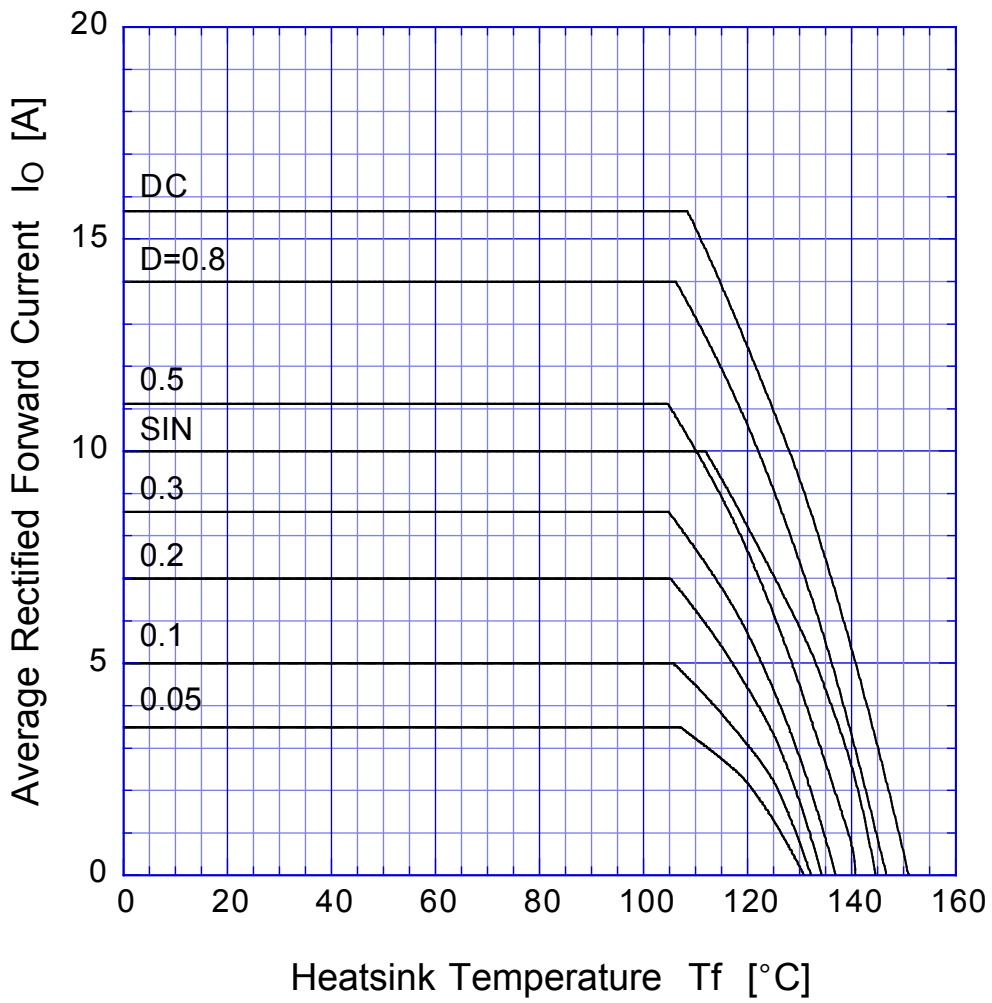


$V_R = 20V$



D10SC4MR

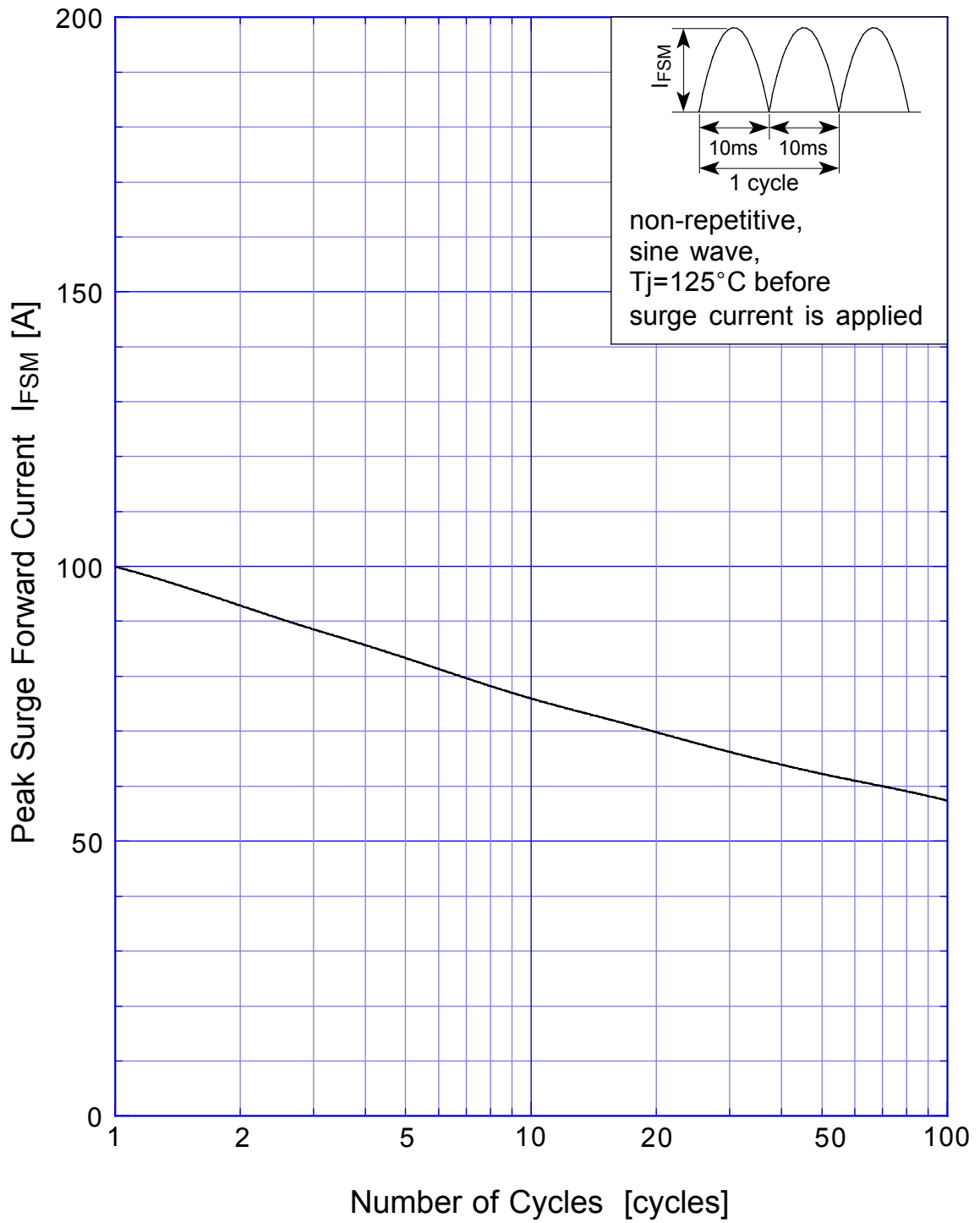
Derating Curve



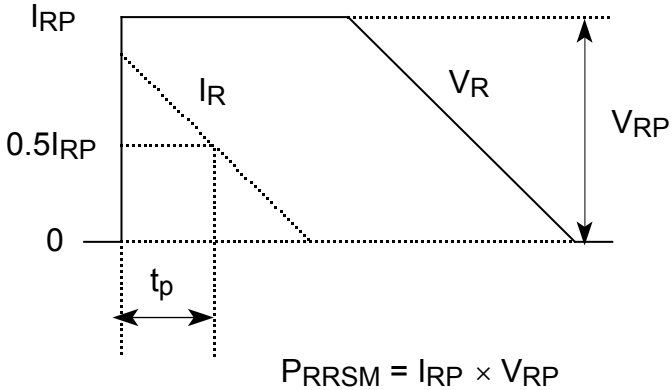
$V_R = 20V$



D10SC4MR Peak Surge Forward Capability



SBD Repetitive Surge Reverse Power Derating Curve



SBD

Repetitive Surge Reverse Power Capability

