

SHINDENGEN

Schottky Rectifiers (SBD)

SBD Bridges

D10SBS4

40V 10A

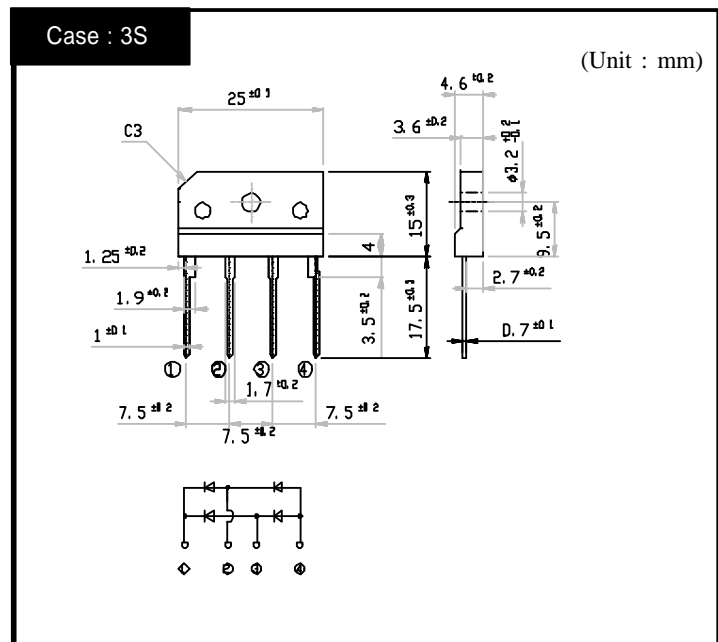
FEATURES

Thin Single In-Line Package
SBD Bridge
Low V_F

APPLICATION

Switching power supply
Home Appliances, Office Equipment
Telecommunication, Factory Automation

OUTLINE DIMENSIONS



RATINGS

Absolute Maximum Ratings (If not specified $T_c=25$)

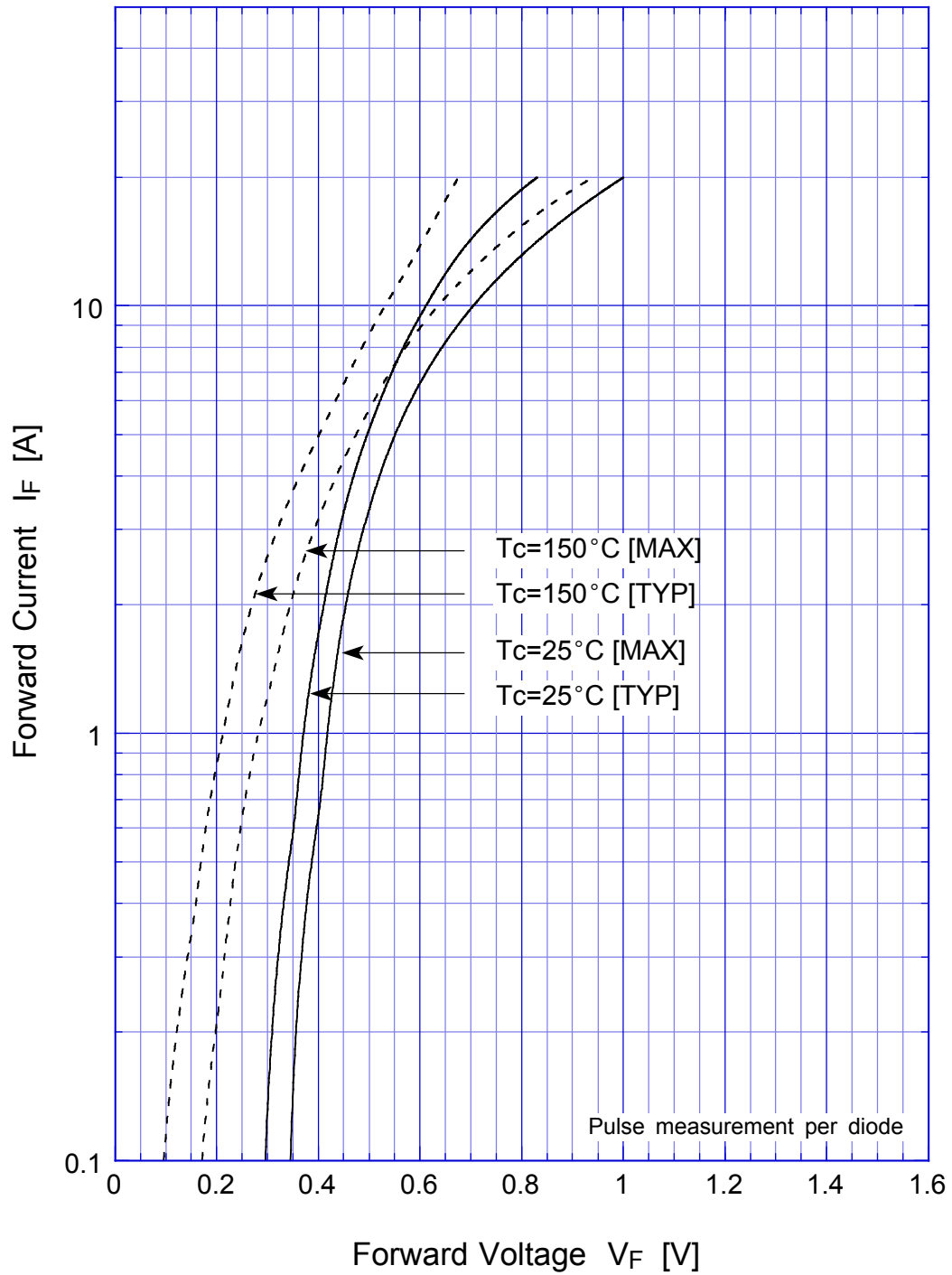
Item	Symbol	Conditions	Ratings	Unit
Storage Temperature	T_{stg}		-55 ~ 150	
Operating Junction Temperature	T_j		150	
Maximum Reverse Voltage	V_{RM}		40	V
Repetitive Peak Surge Reverse Voltage	V_{RRSM}	Pulse width 0.5ms, duty 1/40	45	V
Average Rectified Forward Current	I_O	50Hz sine wave, R-load With heatsink $T_c=67$	10	A
		50Hz sine wave, R-load Without heatsink $T_a=25$	3.4	
Peak Surge Forward Current	I_{FSM}	50Hz sine wave, Non-repetitive 1cycle peak value, $T_j=25$	100	A
Repetitive Peak Surge Reverse Power	P_{RRSM}	Pulse width 10 μ s, Rating of per diode, $T_j=25$	330	W
Dielectric Strength	V_{dis}	Terminals to case, AC 1 minute	2	kV
Mounting Torque	TOR	(Recommended torque 0.5N·m)	0.8	N·m

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

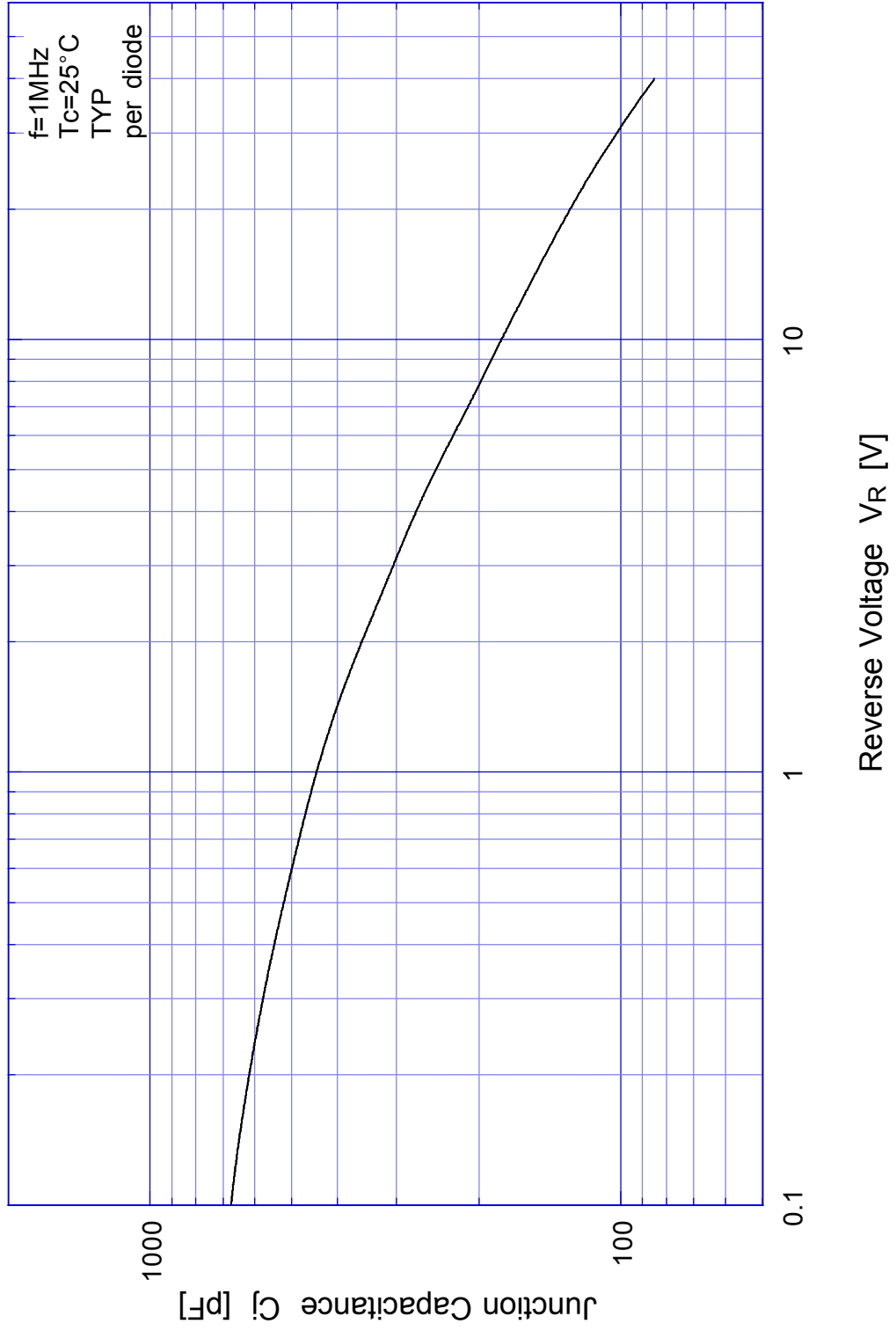
Item	Symbol	Conditions	Ratings	Unit
Forward Voltage	V_F	$I_F=5A$, Pulse measurement, Rating of per diode	Max.0.55	V
Reverse Current	I_R	$V_R=V_{RM}$, Pulse measurement, Rating of per diode	Max.3.5	mA
Junction Capacitance	C_j	$f=1MHz$, $V_R=10V$, Rating of per diode	TYP.180	pF
Thermal Resistance	θ_{jc}	junction to case With heatsink	Max.5.5	/W
	θ_{jl}	junction to lead Without heatsink	Max.6	
	θ_{ja}	junction to ambient Without heatsink	Max.30	

D10SBS4

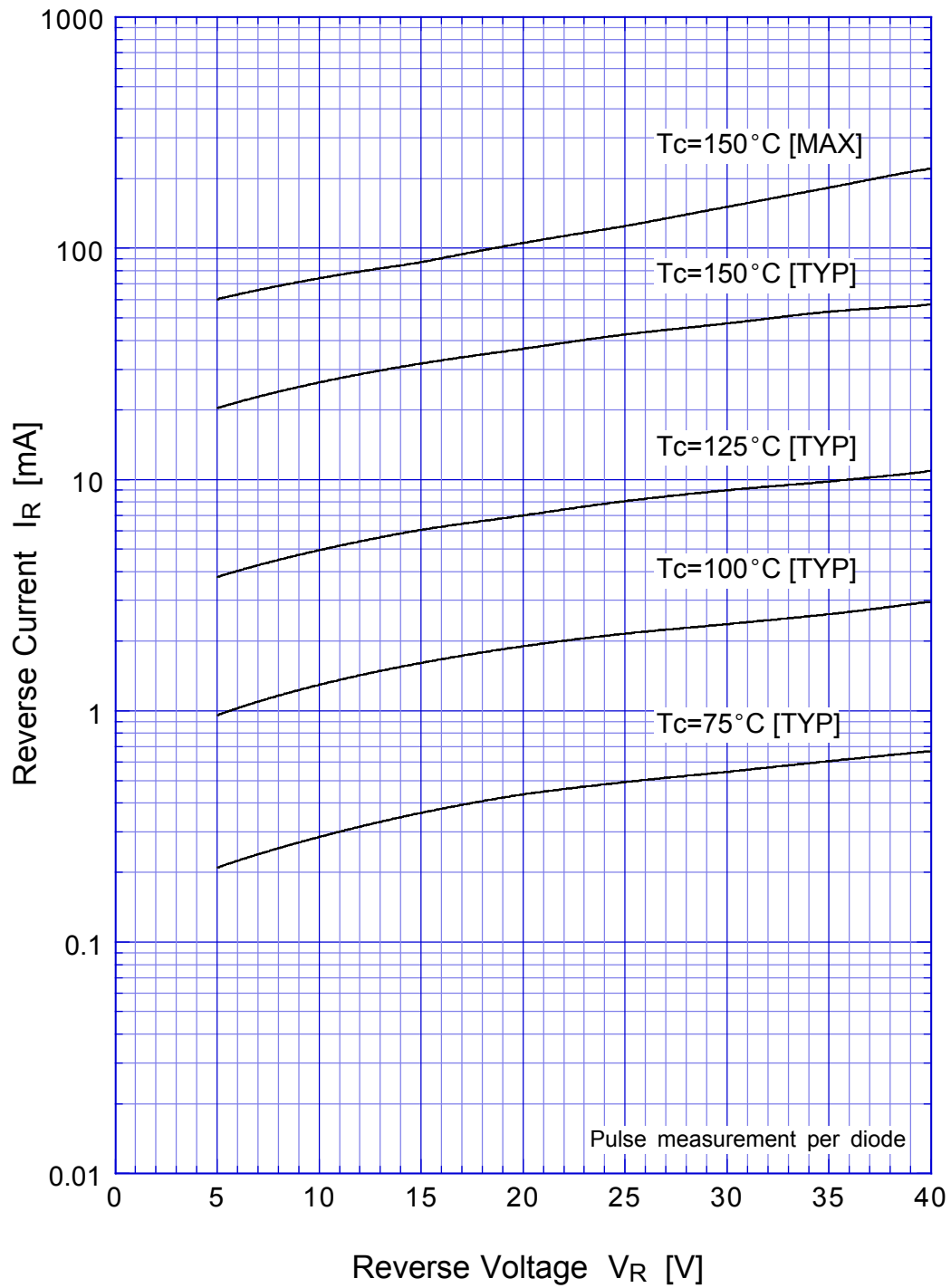
Forward Voltage



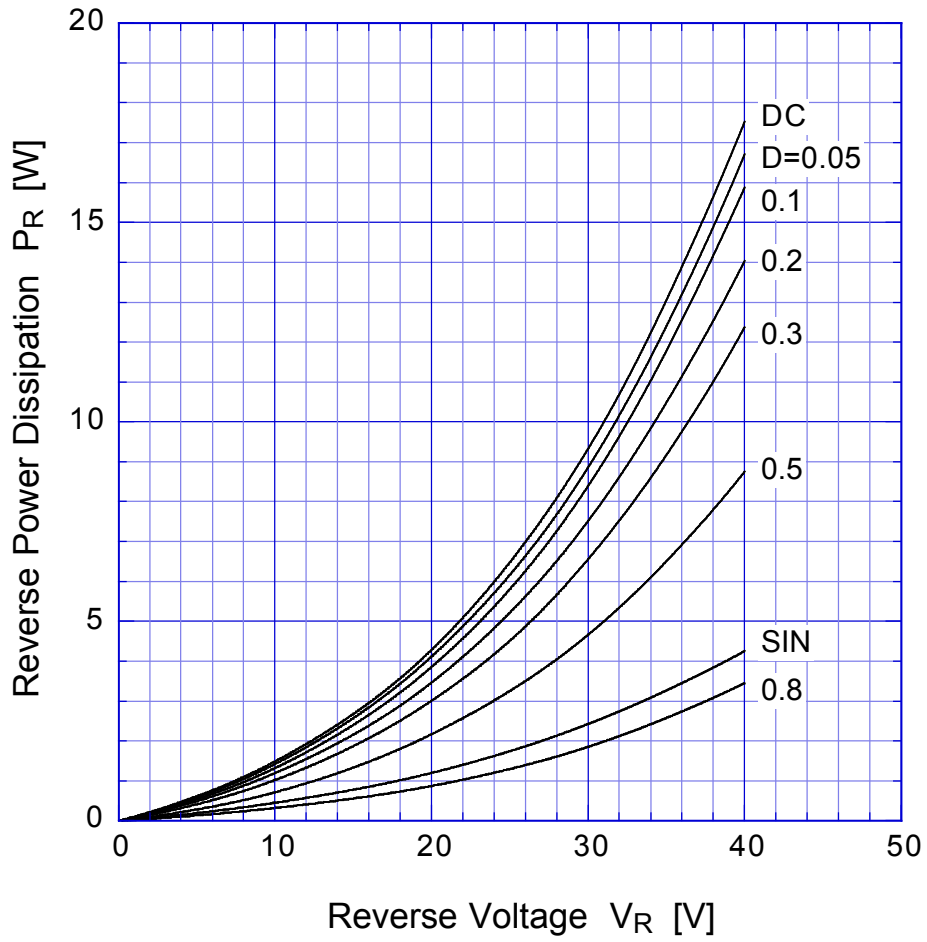
D10SBS4 Junction Capacitance



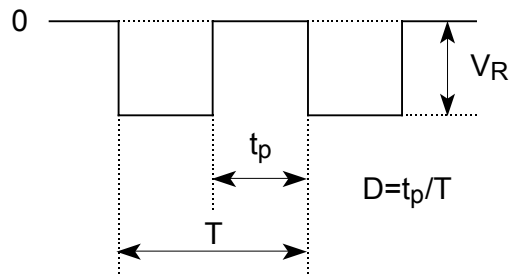
D10SBS4 Reverse Current



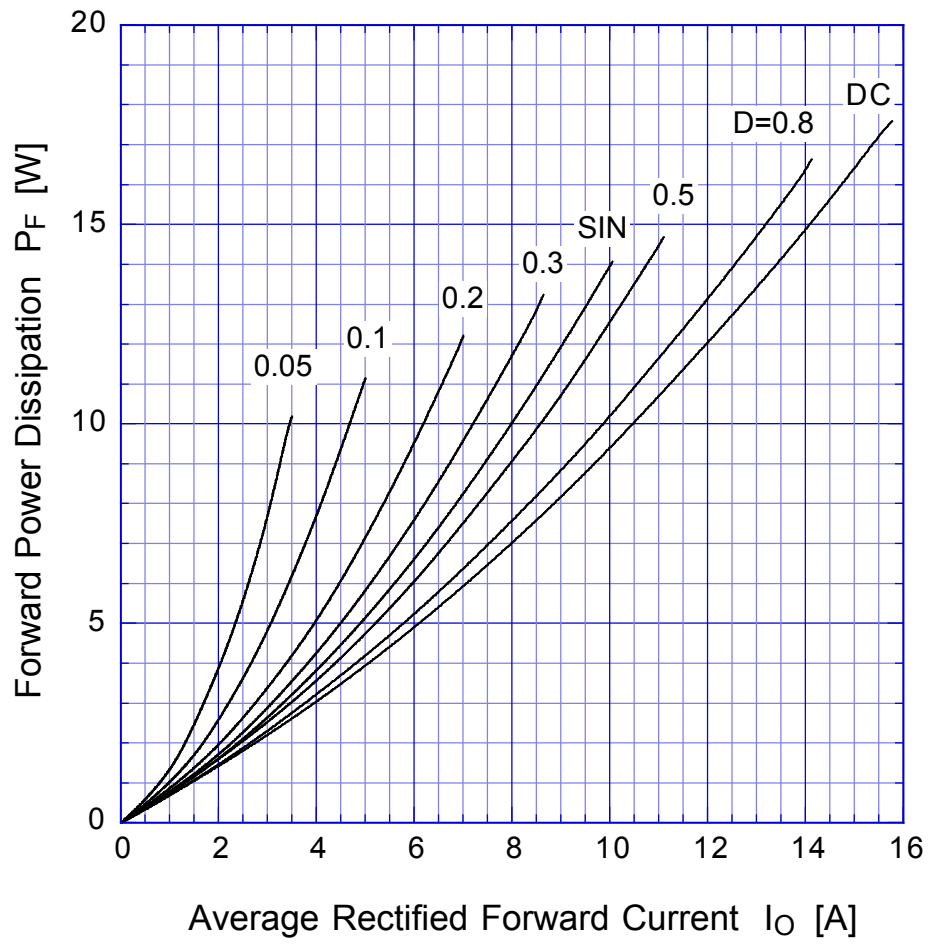
D10SBS4 Reverse Power Dissipation



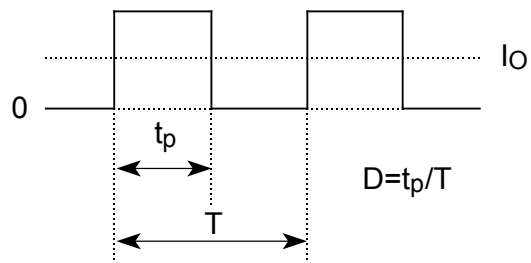
$T_j = 150^\circ\text{C}$



D10SBS4 Forward Power Dissipation

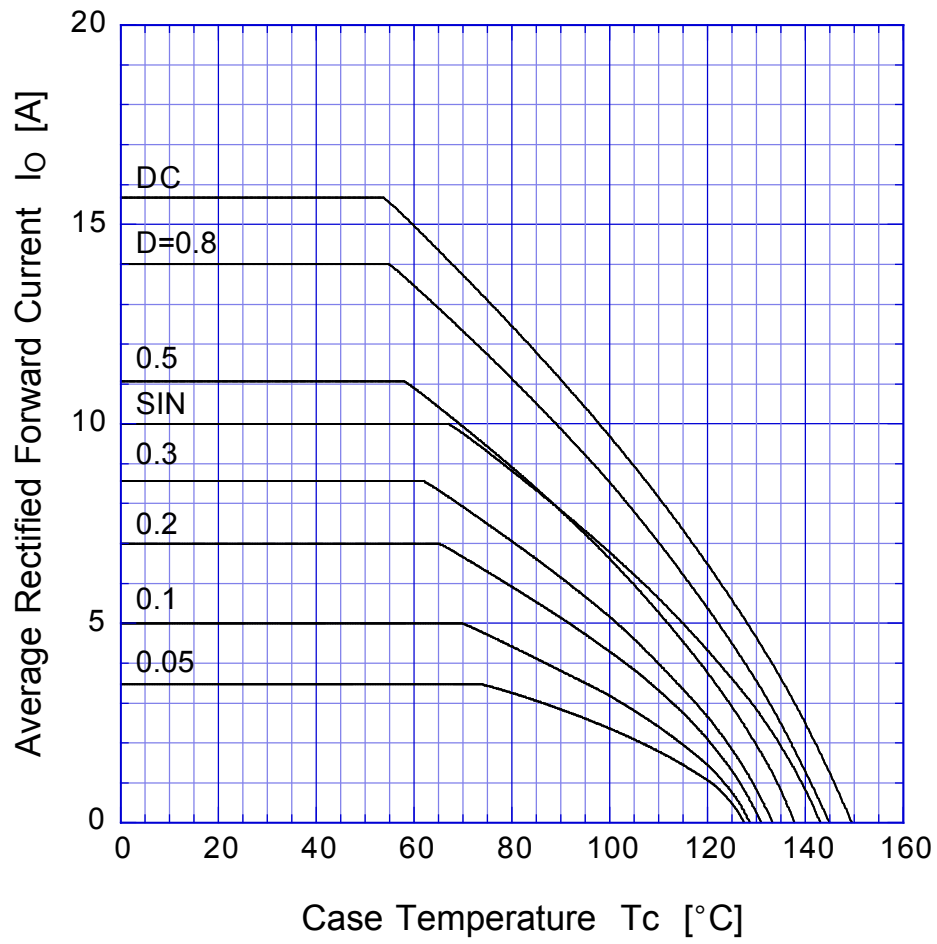


$T_j = 150^\circ\text{C}$

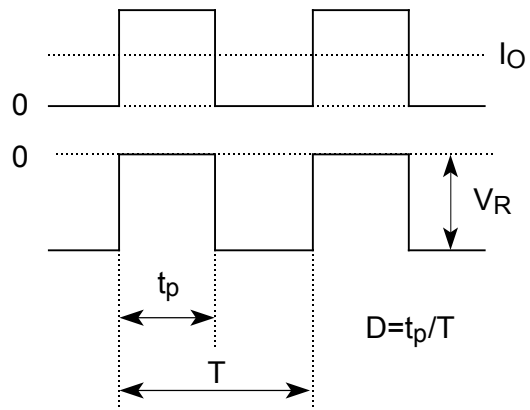


D10SBS4

Derating Curve

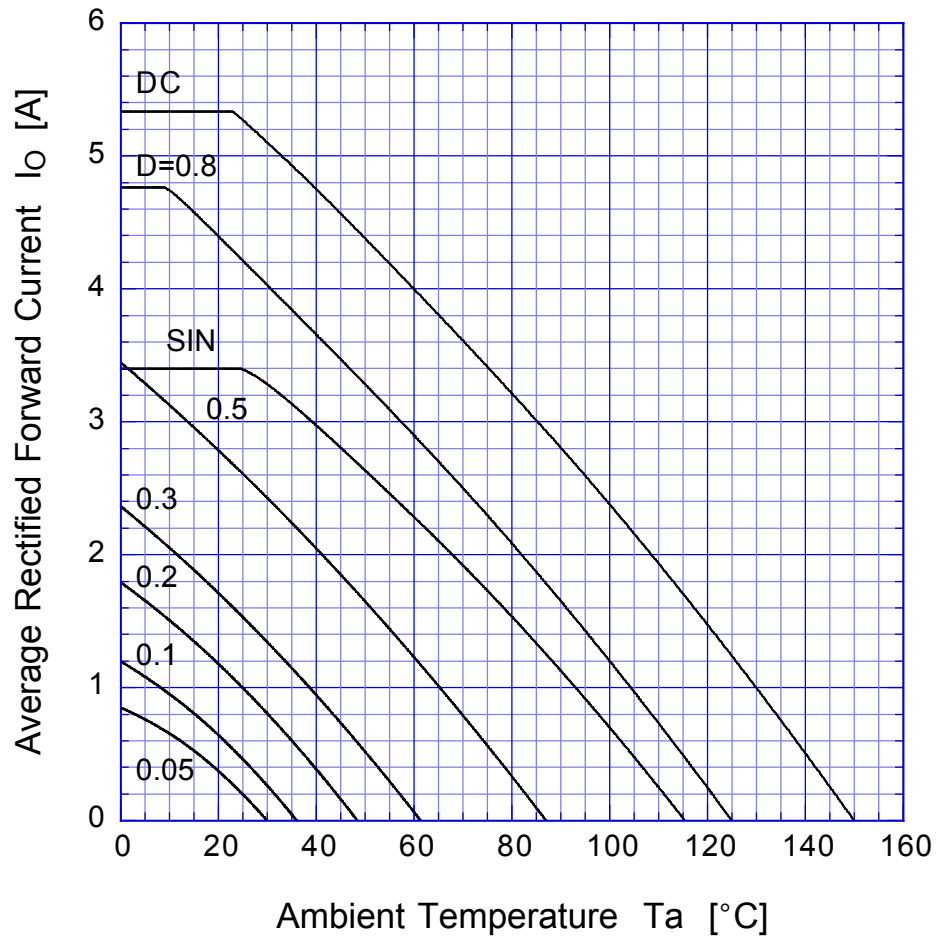


$V_R = 20V$

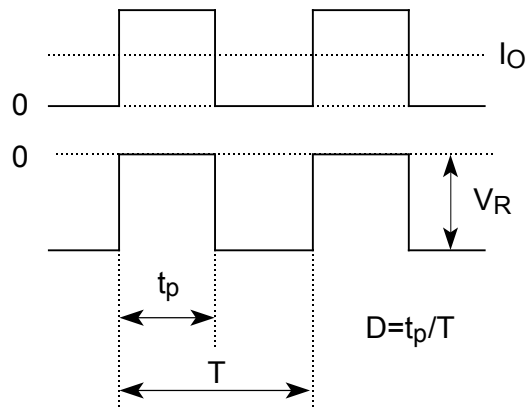


D10SBS4

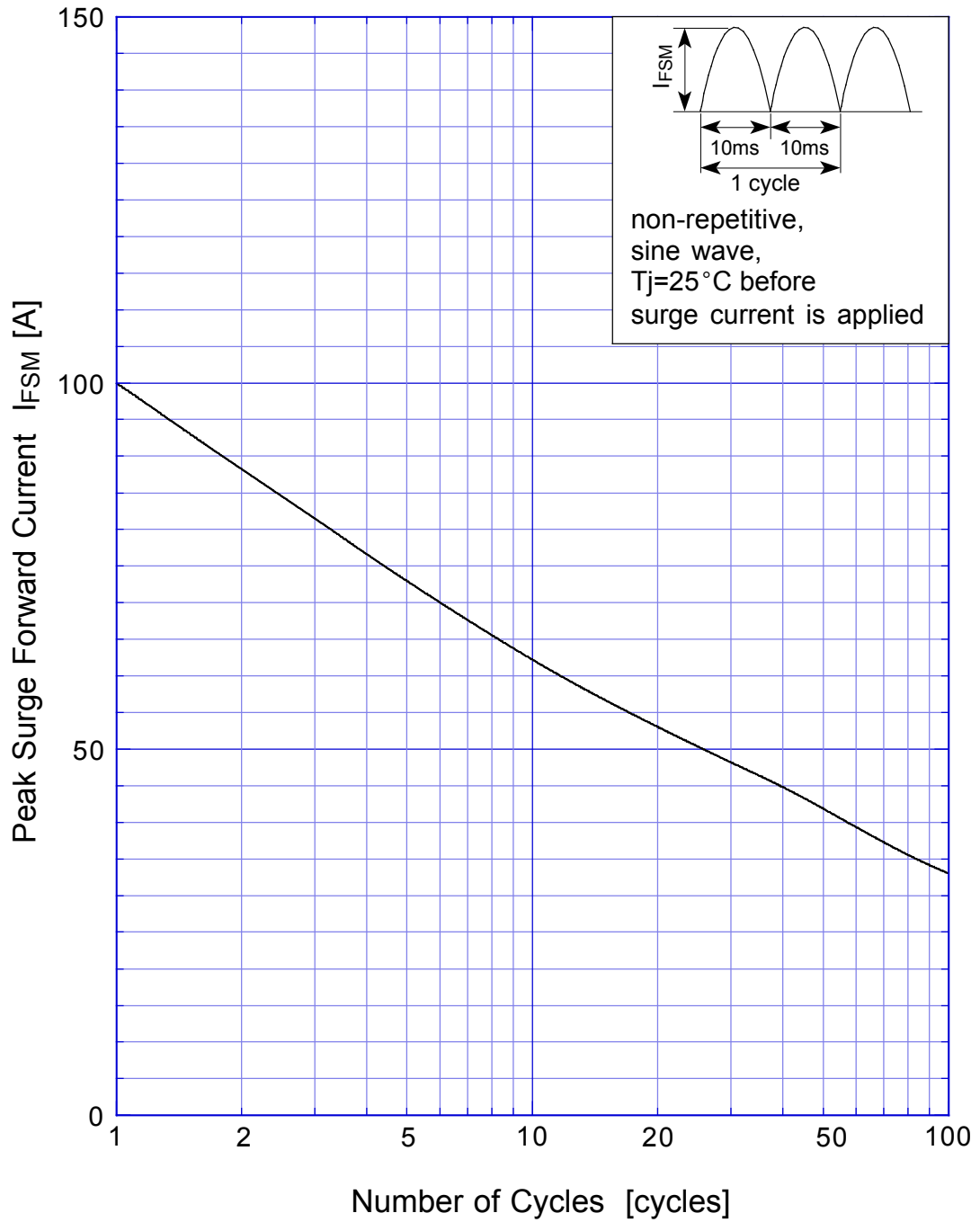
Derating Curve



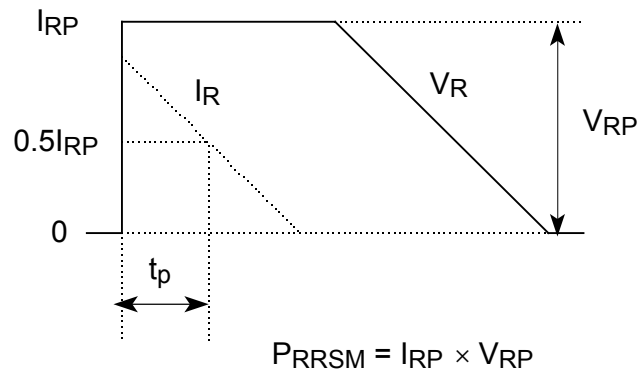
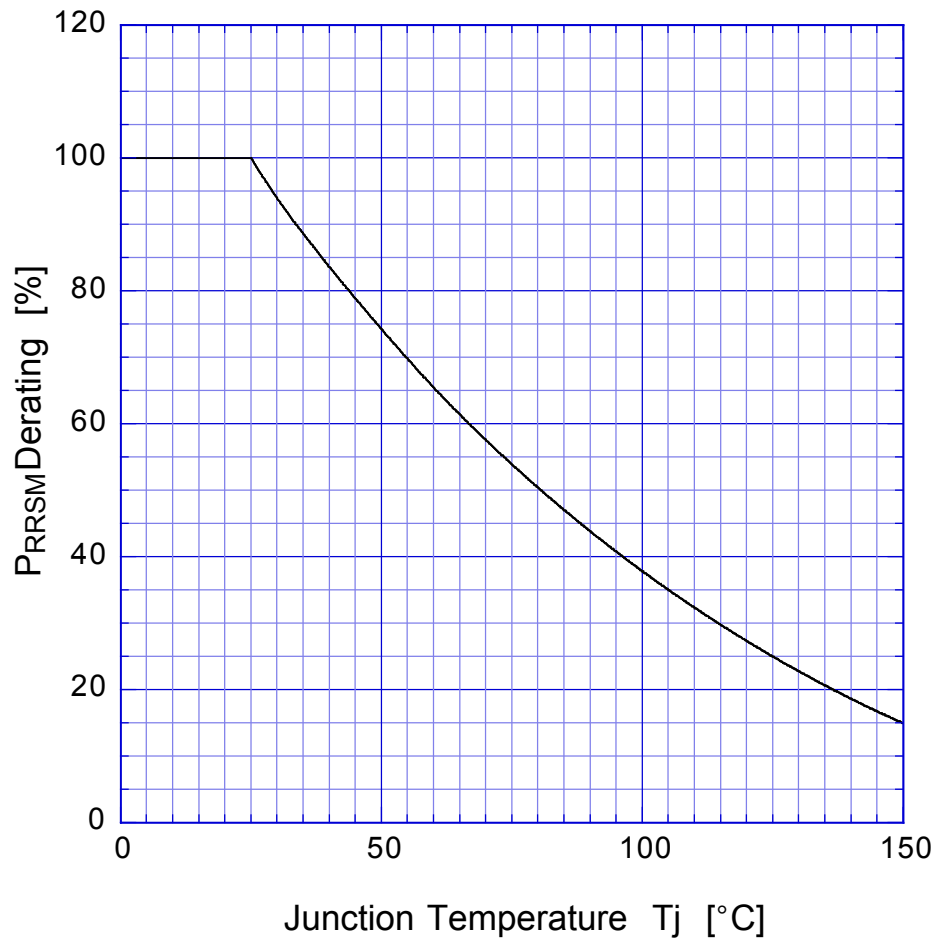
$V_R = 20V$



D10SBS4 Peak Surge Forward Capability



SBD Repetitive Surge Reverse Power Derating Curve



SBD

Repetitive Surge Reverse Power Capability

