

# SHINDENGEN

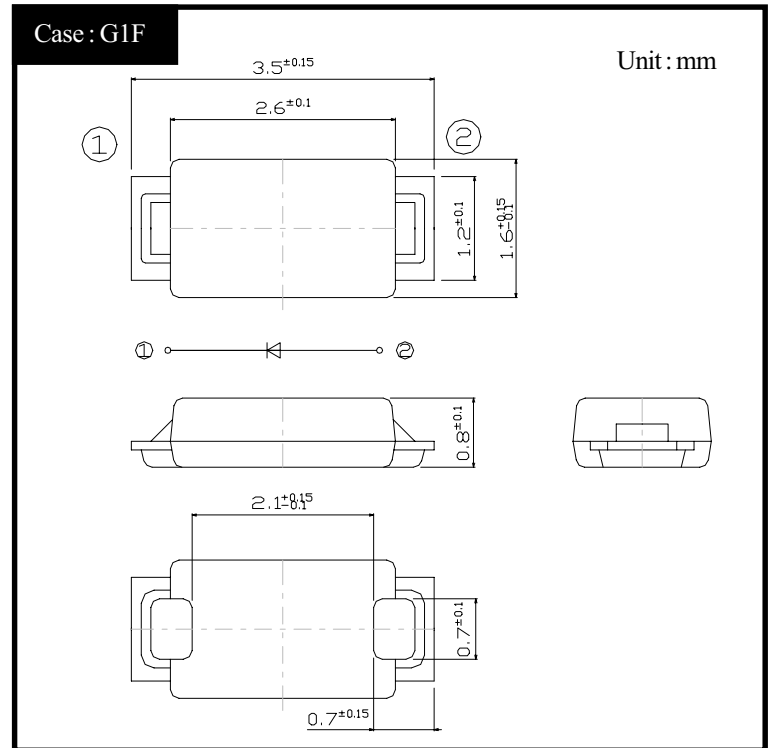
## Schottky Rectifiers (SBD)

Single

# DG1H3

## 30V 1A

### OUTLINE DIMENSIONS



### RATINGS

Absolute Maximum Ratings (Tl=25°C unless otherwise specified)

Item	Symbol	Conditions	Ratings	Unit
Storage Temperature	Tstg		-55 to 125	°C
Operating Junction Temperature	Tj		125	°C
Maximum Reverse Voltage	V <sub>RM</sub>		30	V
Average Rectified Forward Current	I <sub>O</sub>	50Hz sine wave, R-load, T <sub>a</sub> = 26°C, *1	0.7	A
	I <sub>O</sub>	50Hz sine wave, R-load, T <sub>l</sub> = 113°C, *3	1.0	A
Peak Surge Forward Current	I <sub>FSM</sub>	50Hz sine wave, Non-repetitive 1 cycle peak value, T <sub>j</sub> =25°C	20	A

Electrical Characteristics (Tl=25°C unless otherwise specified)

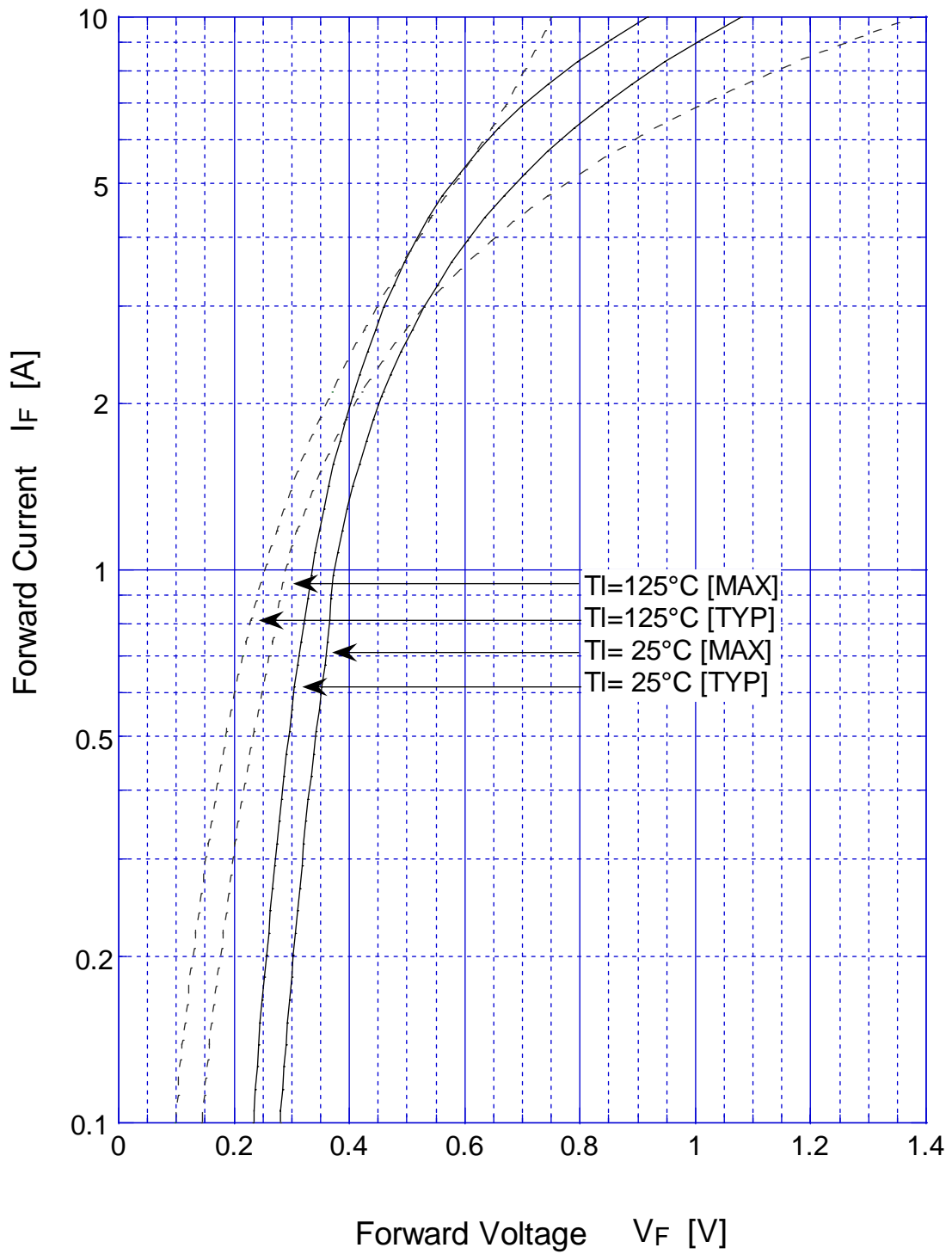
Item	Symbol	Conditions	Ratings	Unit
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> =0.2A, Pulse measurement	Max 0.30	V
	V <sub>F</sub>	I <sub>F</sub> =0.7A, Pulse measurement	Max 0.36	V
Reverse Current	I <sub>R</sub>	V <sub>R</sub> =V <sub>RM</sub> , Pulse measurement	Max 1	mA
Junction Capacitance	C <sub>j</sub>	f=1MHz, V <sub>R</sub> =10V	Typ 37	pF
Thermal Resistance	θ <sub>ja</sub>	junction to ambient, *1	Max 210	°C/W
	θ <sub>ja</sub>	junction to ambient, *2	Max 120	
	θ <sub>ja</sub>	junction to ambient, *3	Max 70	
	θ <sub>jl</sub>	junction to lead, *3	Max 20	

\*1 Measured on the 1×1 inch phenol substrate (pattern area : 32.6mm<sup>2</sup>)

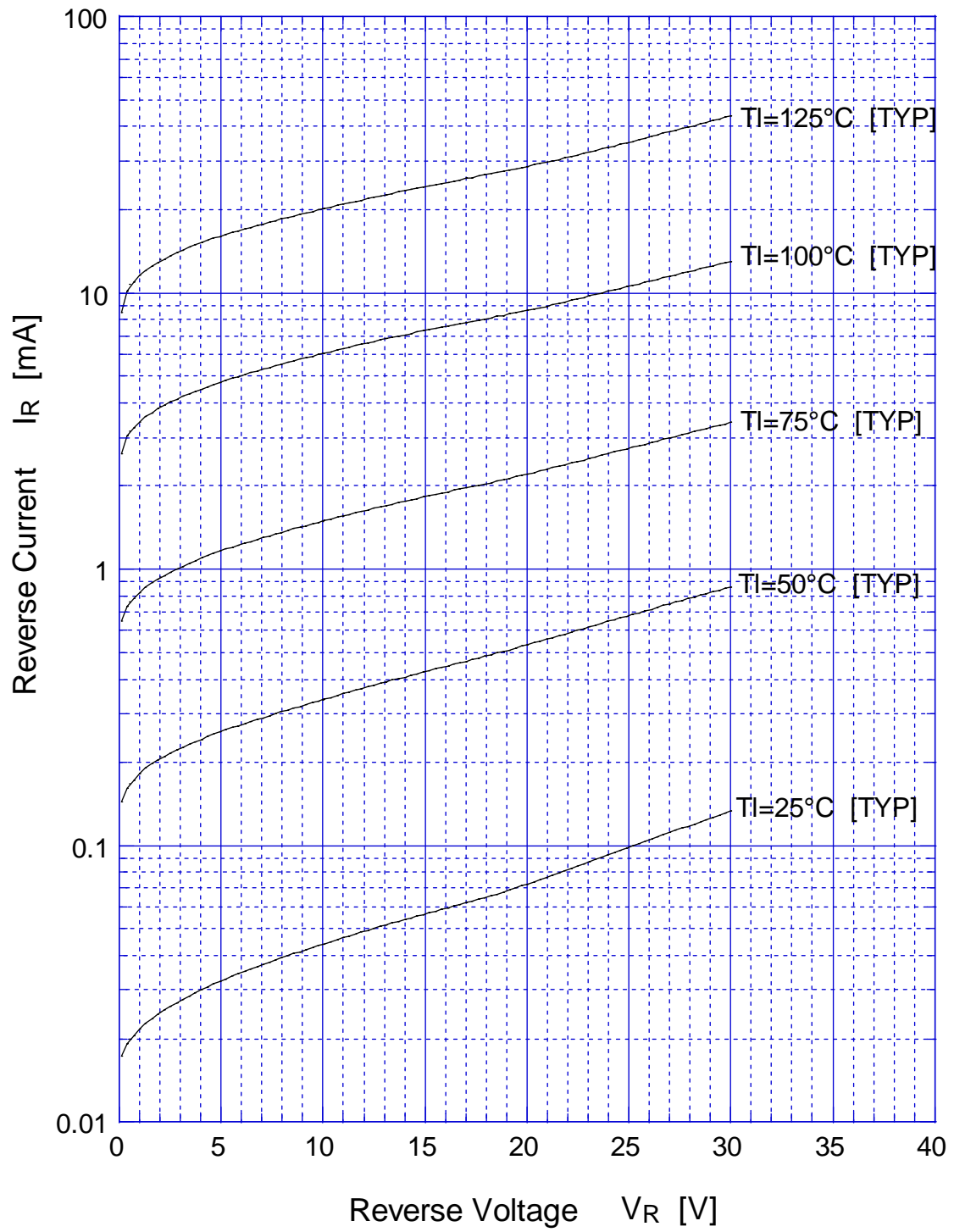
\*2 Measured on the 1×1 inch phenol substrate (pattern area : 160mm<sup>2</sup>)

\*3 Measured on the 2×2 inch alumina substrate (pattern area : 2100mm<sup>2</sup>)

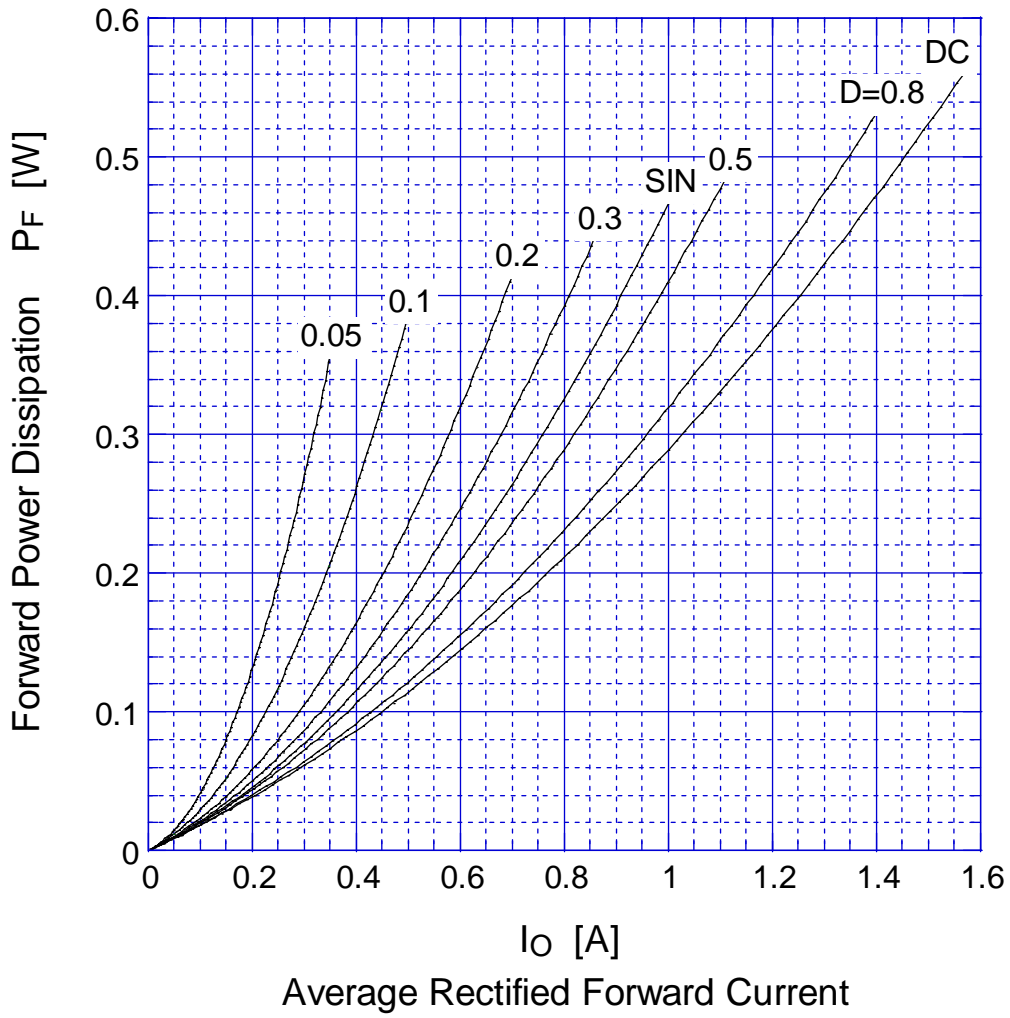
# DG1H3 Forward Voltage



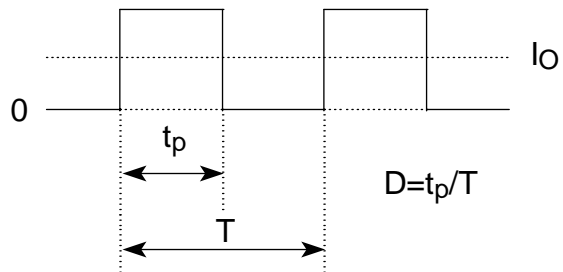
# DG1H3 Reverse Current



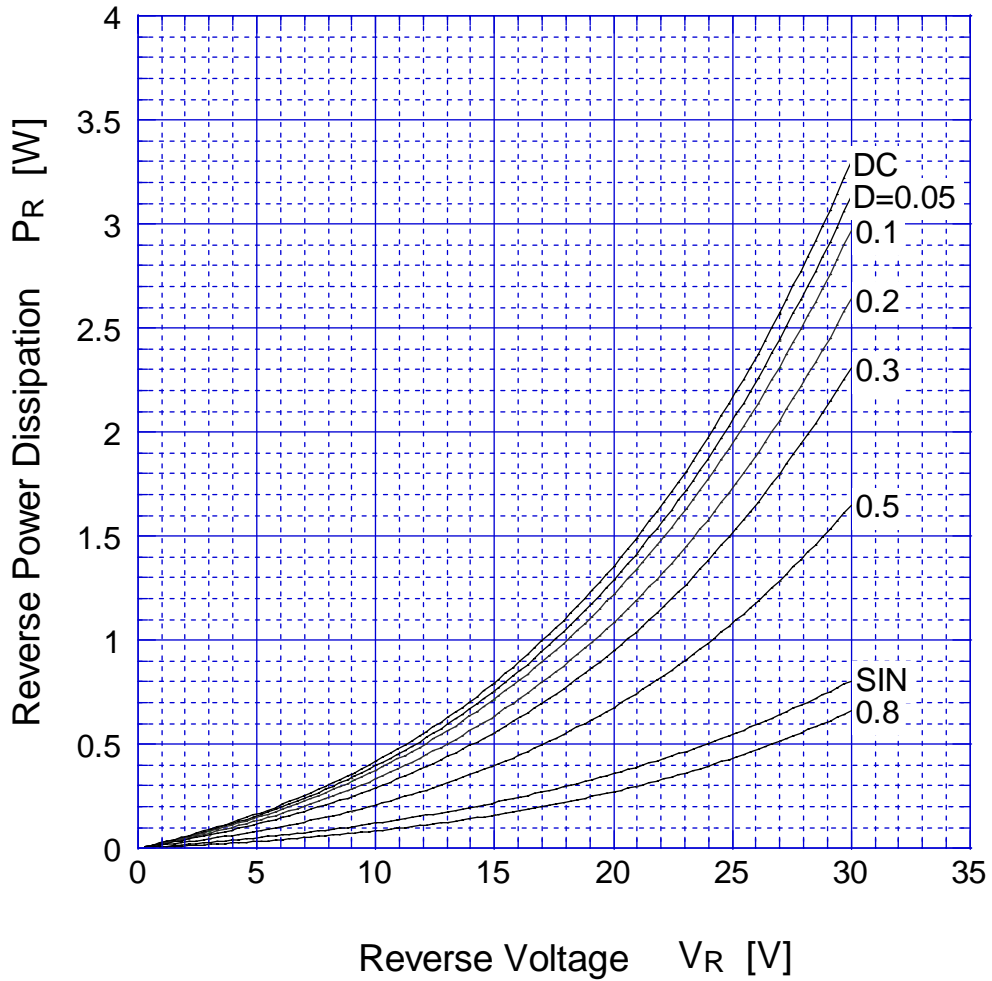
# DG1H3 Forward Power Dissipation



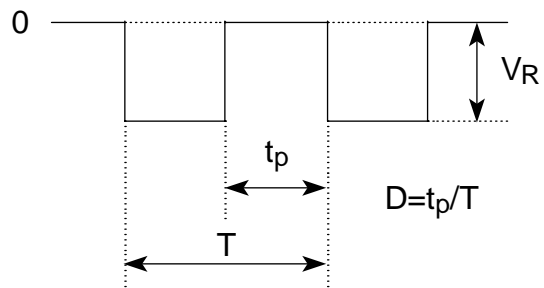
$T_j = 125^\circ\text{C}$



# DG1H3 Reverse Power Dissipation

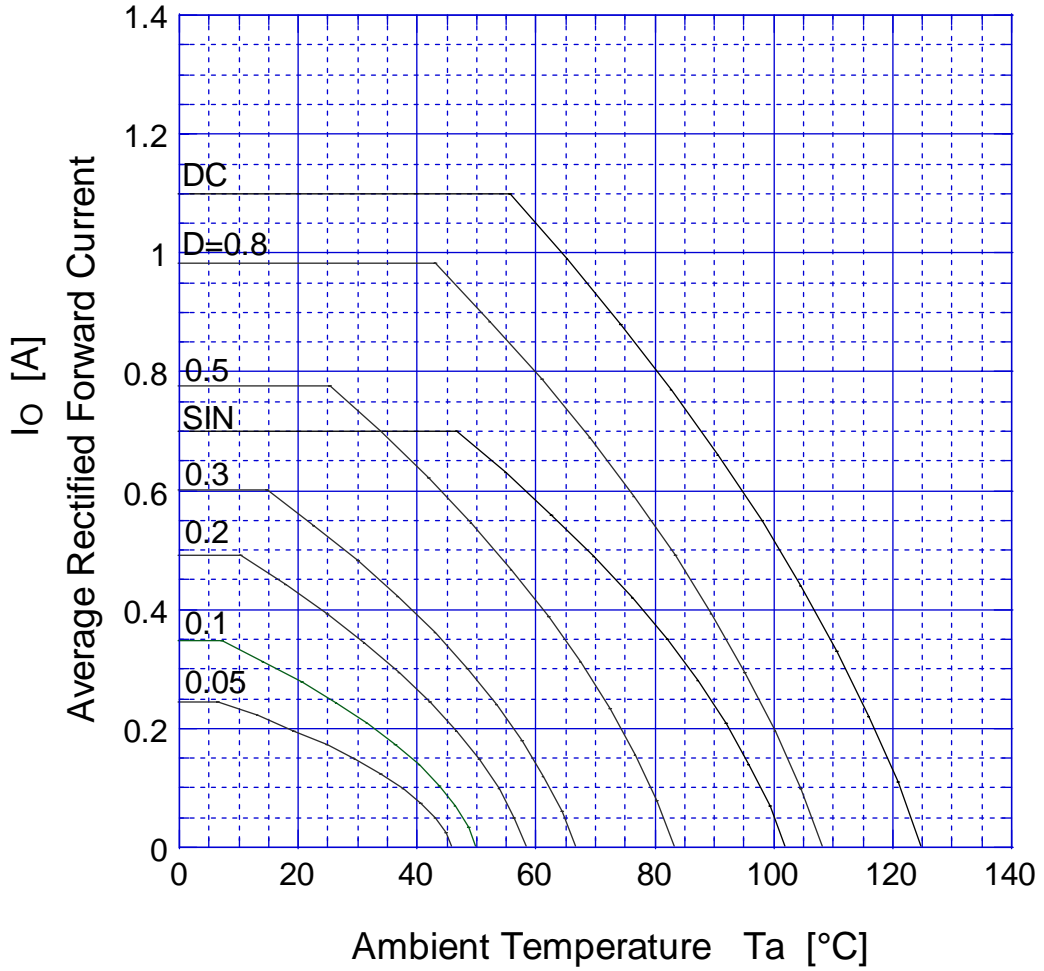


$T_j = 125^\circ\text{C}$

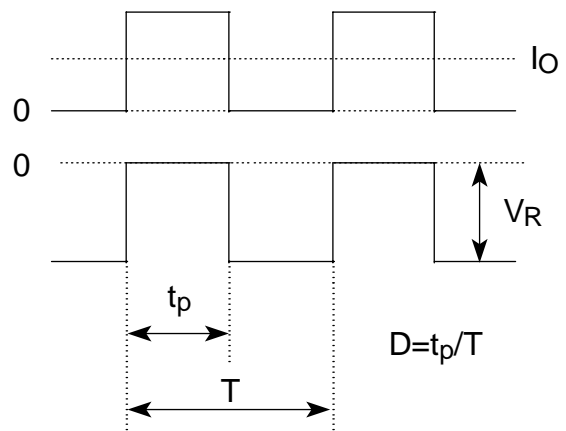
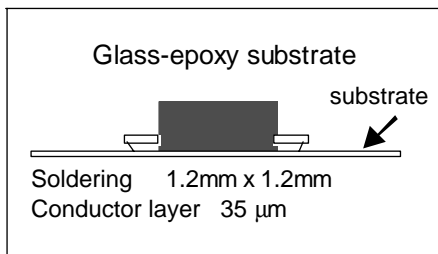


# DG1H3

# Derating Curve

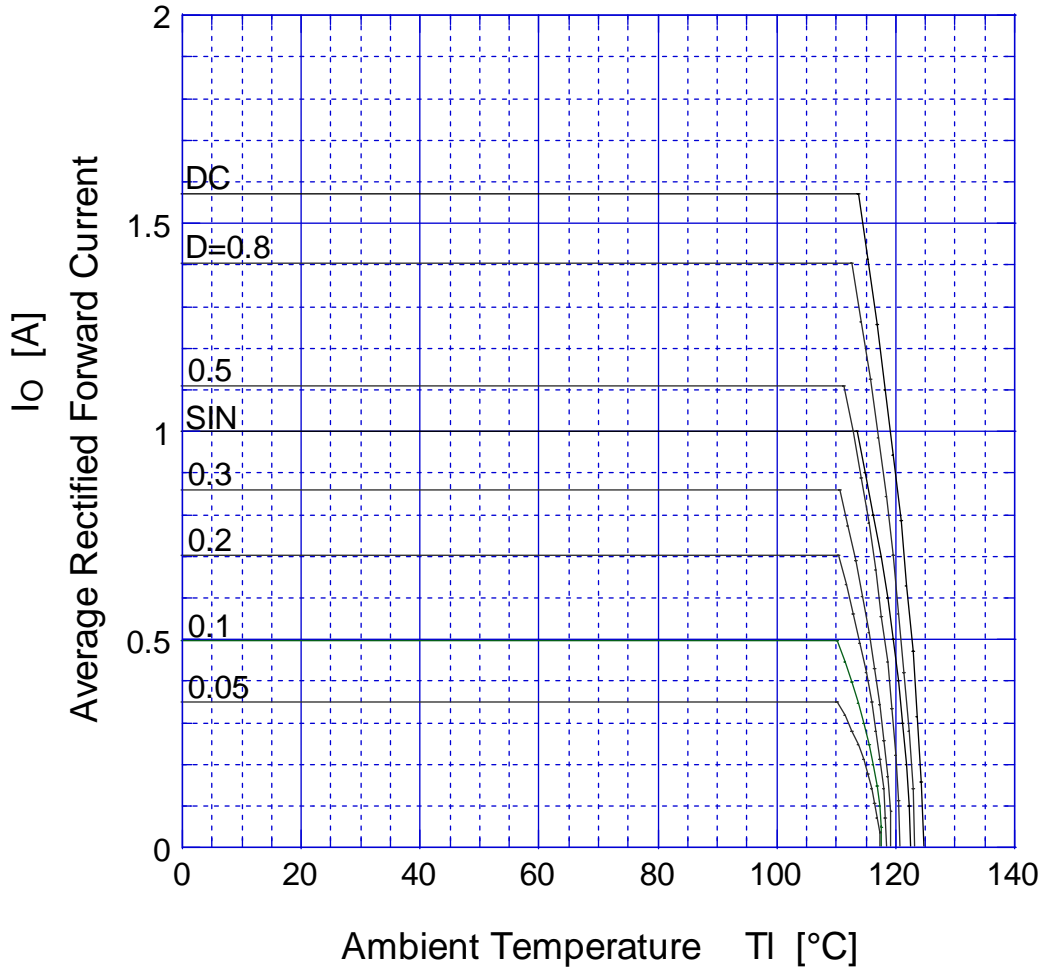


$V_R = 15V$

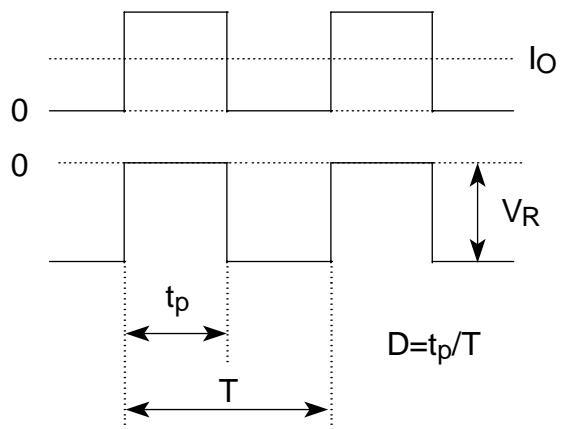
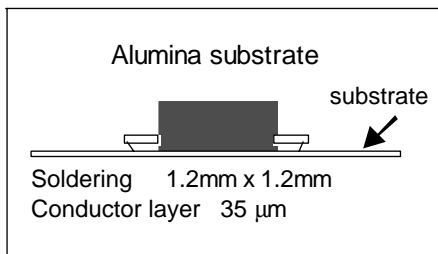


# DG1H3

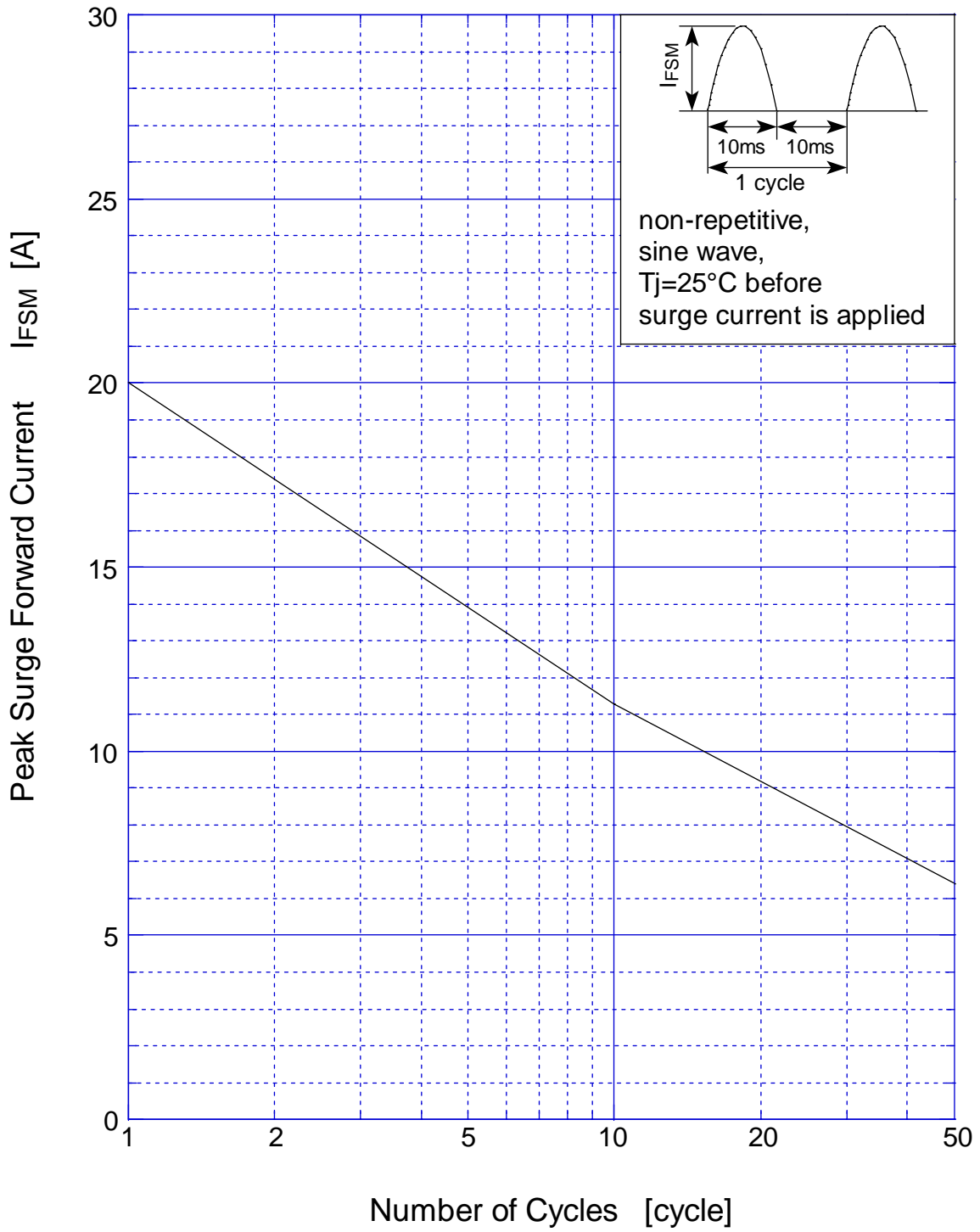
# Derating Curve



$$V_R = 15V$$



# DG1H3 Peak Surge Forward Capability





# DG1H3 Junction Capacitance

