

# SHINDENGEN

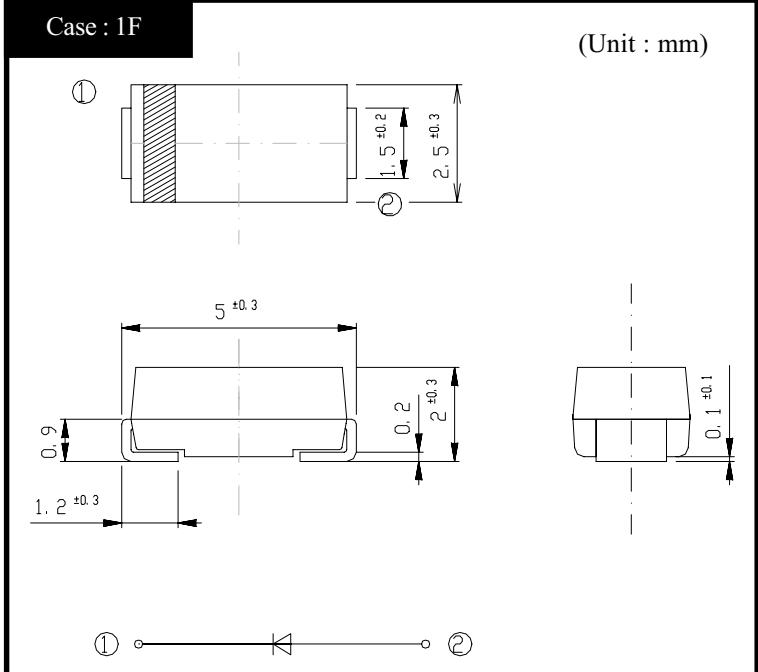
## Super Fast Recovery Rectifiers

Single

**D1FK70**

**700V 0.8A**

### OUTLINE DIMENSIONS



## RATINGS

Absolute Maximum Ratings (Unless otherwise specified,  $T_I=25^\circ\text{C}$ )

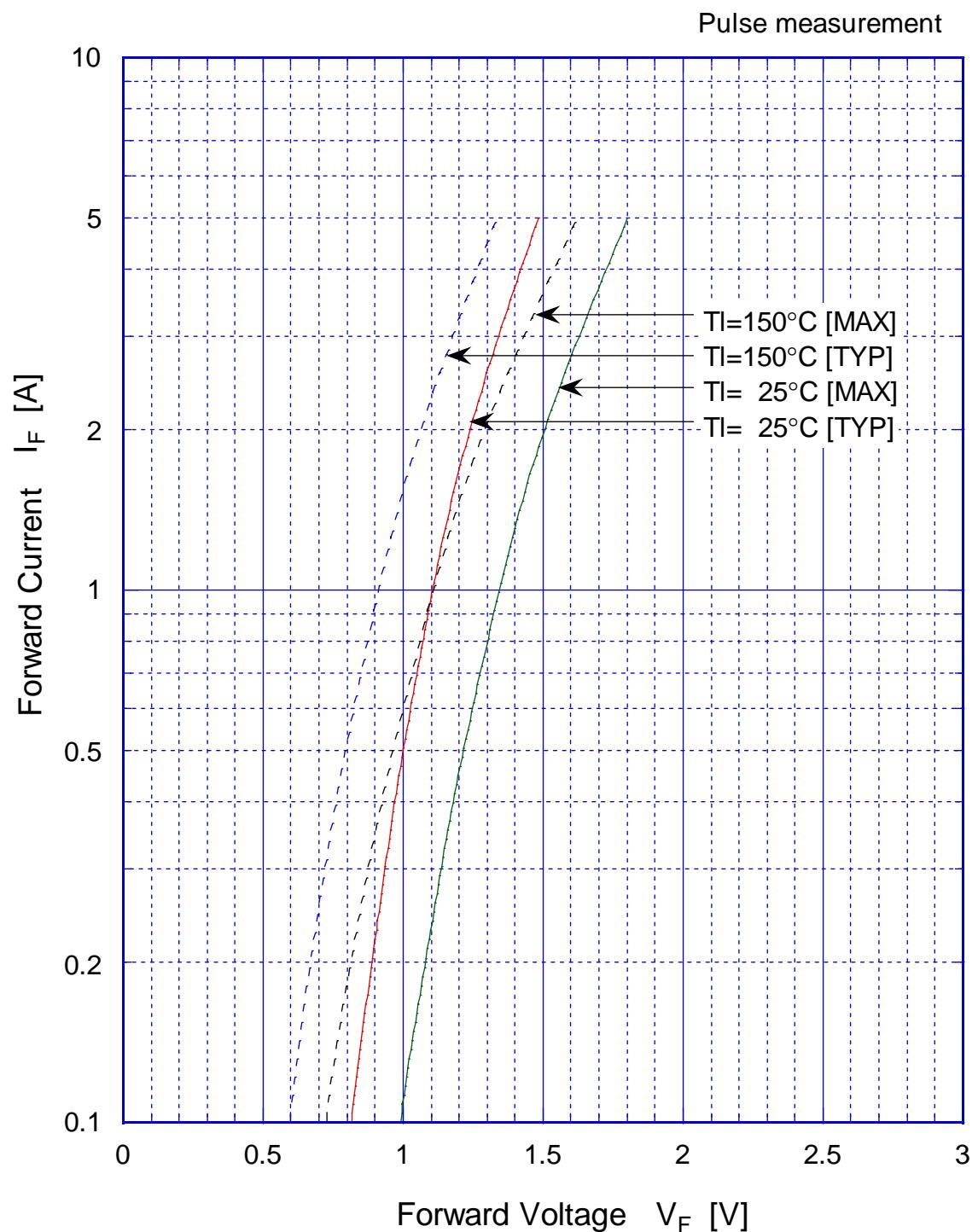
Item	Symbol	Conditions	Ratings	Unit
Storage Temperature	$T_{STG}$		-55 to +150	$^\circ\text{C}$
Operating Junction Temperature	$T_J$		150	$^\circ\text{C}$
Maximum Reverse Voltage	$V_{RM}$		700	V
Average Rectified Forward Current	$I_O$	50Hz sine wave, R-load, alumina substrate $T_a=32^\circ\text{C}$ 50Hz sine wave, R-load, glass-epoxy substrate $T_a=33^\circ\text{C}$	0.8 0.6	A
Peak Surge Forward Current	$I_{FSM}$	50Hz sine wave, Non-repetitive 1 cycle peak value, $T_J=25^\circ\text{C}$	25	A

Electrical Characteristics (Unless otherwise specified,  $T_I=25^\circ\text{C}$ )

Item	Symbol	Conditions	Ratings	Unit
Forward Voltage	$V_F$	$I_F = 0.8\text{A}$ , Pulse measurement	Max 1.3	V
Reverse Current	$I_R$	$V_R = V_{RM}$ , Pulse measurement	Max 10	$\mu\text{A}$
Reverse Recovery Time	$t_{rr}$	$I_F = 0.5\text{A}$ , $I_R = 1\text{A}$	Max 400	ns
Junction Capacitance	$C_J$	$f = 1\text{MHz}$ , $V_R = 10\text{V}$	Typ 7	pF
Thermal Resistance	$\theta_{jl}$	junction to lead	Max 23	$^\circ\text{C}/\text{W}$
		junction to ambient, alumina substrate	Max 108	
	$\theta_{ja}$	junction to ambient, glass-epoxy substrate	Max 157	

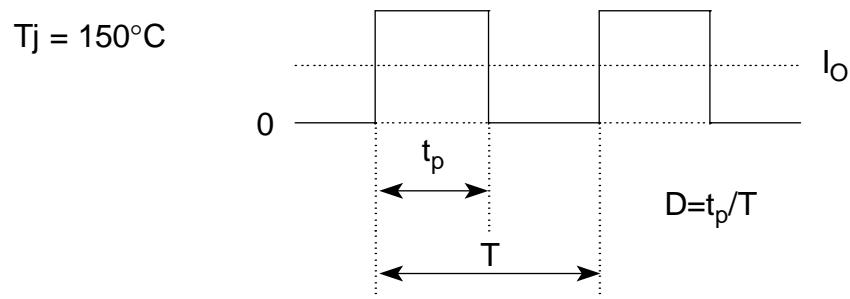
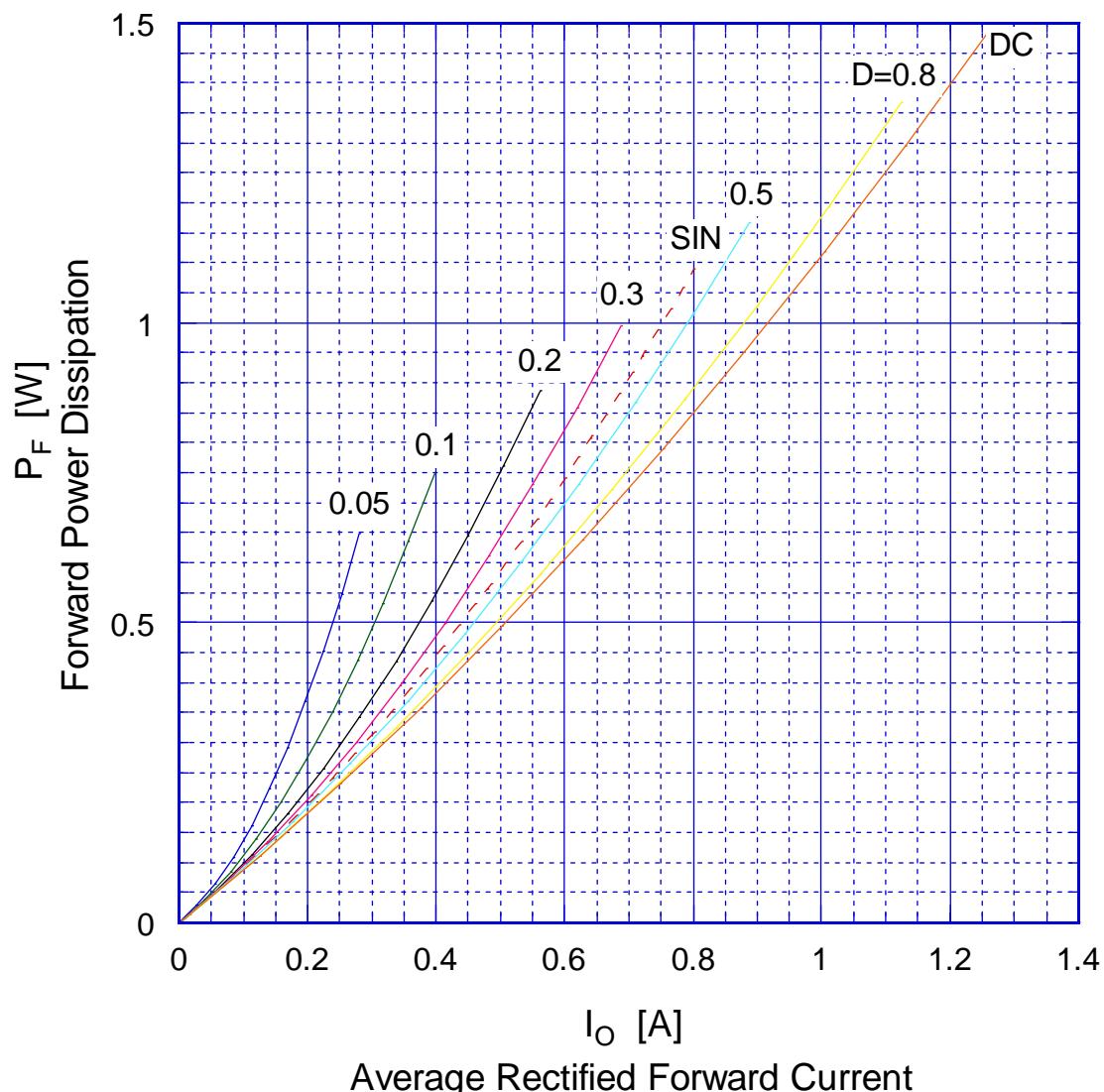
D1FK70

Forward Voltage

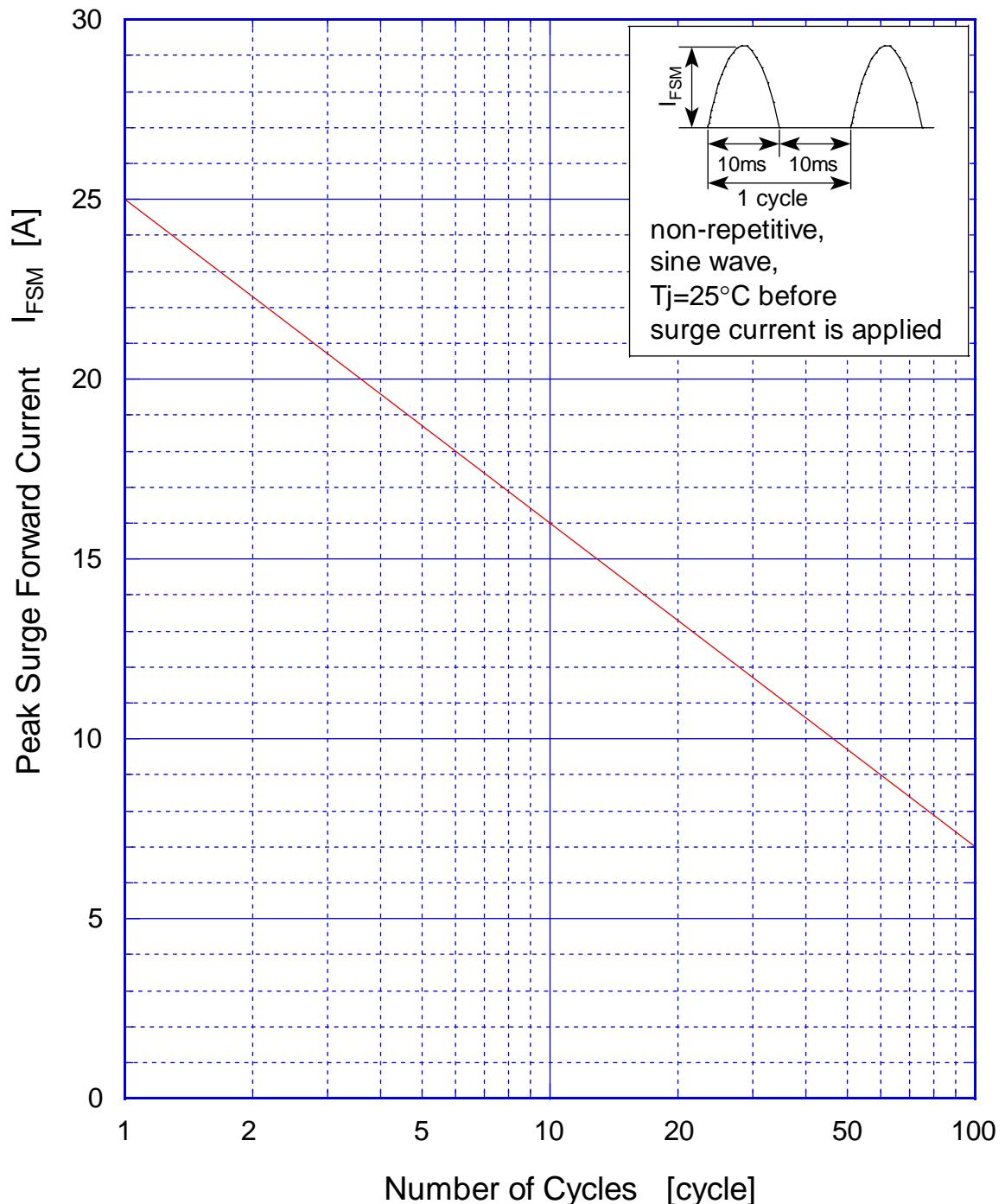


# D1FK70      Forward Power Dissipation

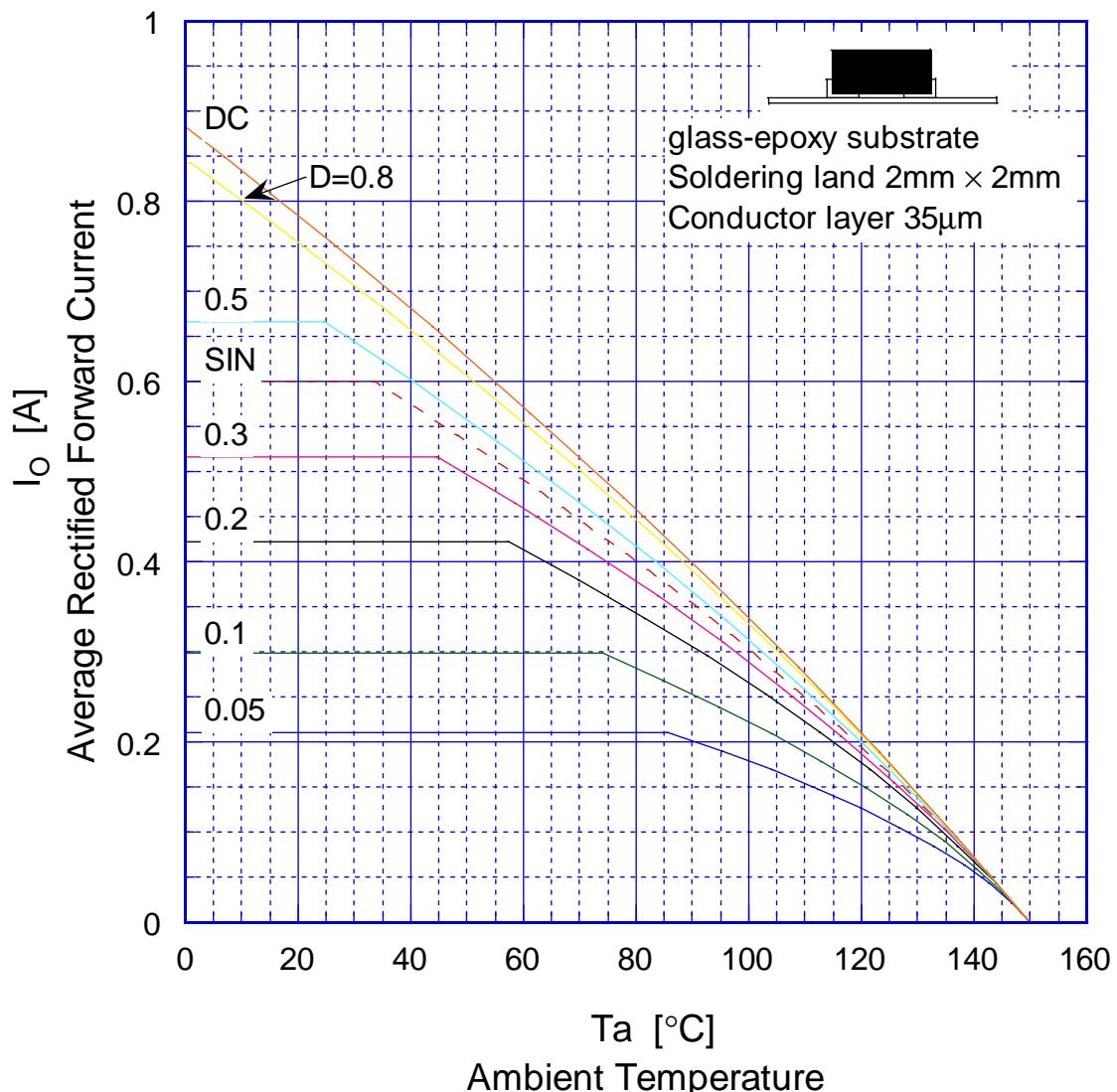
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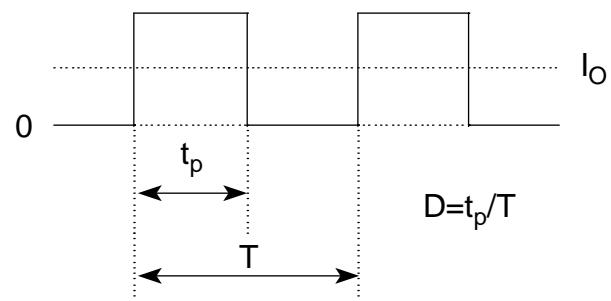
## D1FK70 Peak Surge Forward Capability



# D1FK70 Derating Curve

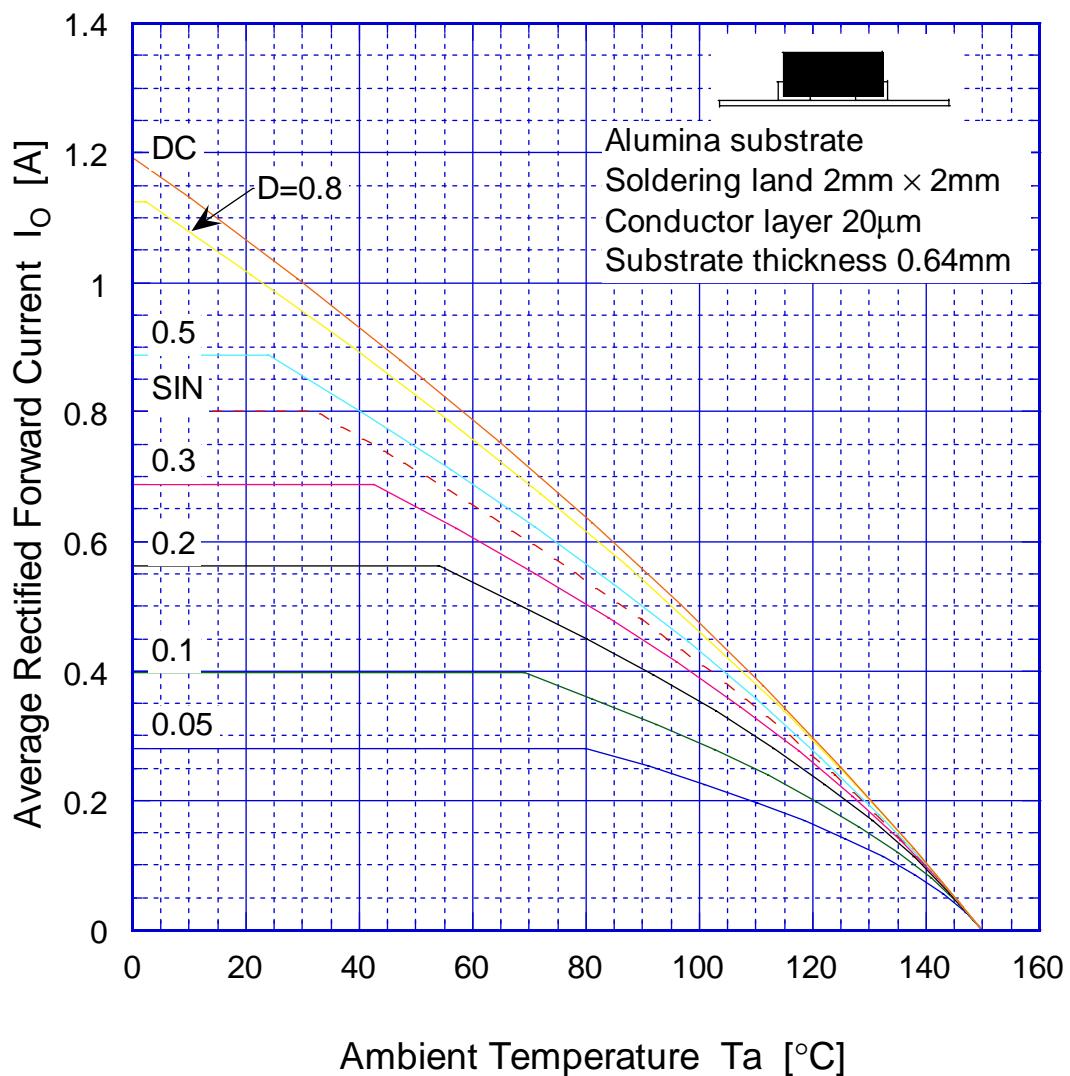


$$V_R = V_{RM}$$

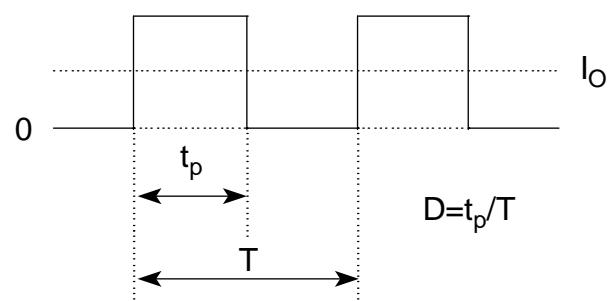


# D1FK70 Derating Curve

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$$V_R = V_{RM}$$



## D1FK70 Junction Capacitance

