Voltage Ratings

Parameters		22GQ100
V_R	Max. DC Reverse Voltage (V)	100
V_{RWM}	Max. Working Peak Reverse Voltage (V)	

Absolute Maximum Ratings

Parameters		Limits	Units	Conditions
$I_{F(AV)}$	Max. Average Forward Current See Fig. 5	30	A	50% duty cycle @ T_C = 113°C, rectangular waveform
I_{FSM}	Max. Peak One Cycle Non - Repetitive Surge Current	400	A	@ t_p = 8.3 ms half-sine

Electrical Specifications

Parameters		Limits	Units	Conditions	
V_{FM}	Max. Forward Voltage Drop See Fig. 1①	0.86	V	@ 20A	T_J = -55°C
		0.99	V	@ 35A	
		0.84	V	@ 20A	T_J = 25°C
		0.98	V	@ 35A	
		0.73	V	@ 20A	T_J = 125°C
		0.84	V	@ 35A	
I_{RM}	Max. Reverse Leakage Current	0.8	mA	T_J = 25°C	V_R = rated V_R
	See Fig. 2 ①	45	mA	T_J = 125°C	
C_T	Max. Junction Capacitance	1400	pF	V_R = 5V_{DC} (1MHz, 25°C)	
L_S	Typical Series Inductance	7.8	nH	Measured from anode lead to cathode lead 6mm (0.025 in.) from package	

Thermal-Mechanical Specifications

Parameters		Limits	Units	Conditions
T_J	Max.Junction Temperature Range	-55 to 150	°C	
T_{stg}	Max. Storage Temperature Range	-55 to 150	°C	
R_{thJC}	Max. Thermal Resistance, Junction to Case	1.0	°C/W	DC operation See Fig. 4
wt	Weight (Typical)	9.3	g	
	Die Size	200X200	mils	
	Case Style	TO-254AA		

① Pulse Width < 300µs, Duty Cycle < 2%

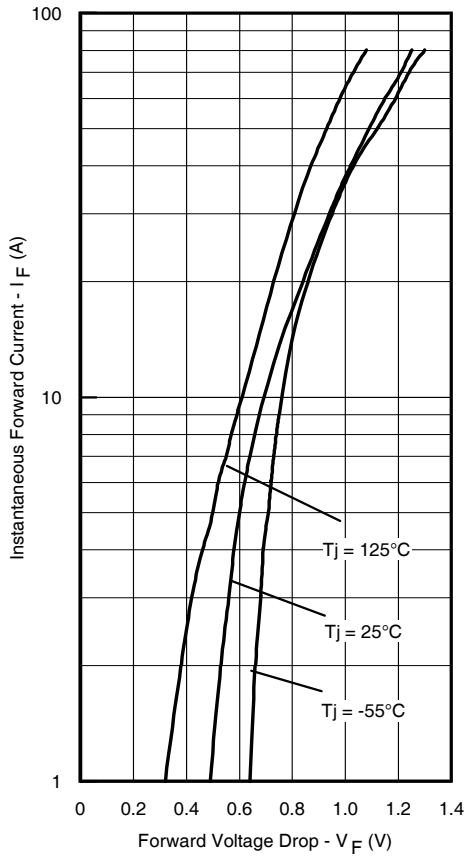

Fig. 1 - Maximum Forward Voltage Drop Characteristics

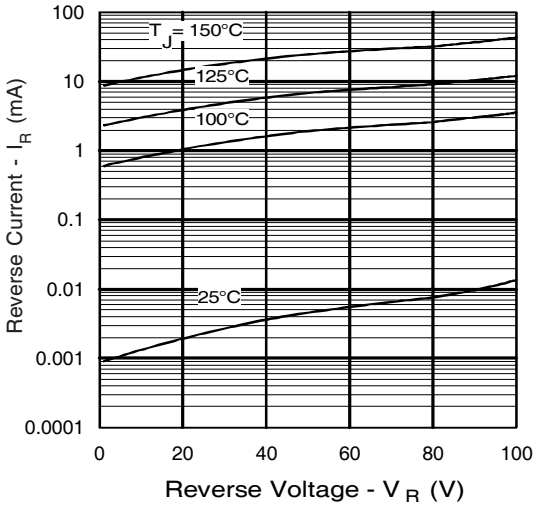

Fig. 2 - Typical Values of Reverse Current Vs. Reverse Voltage

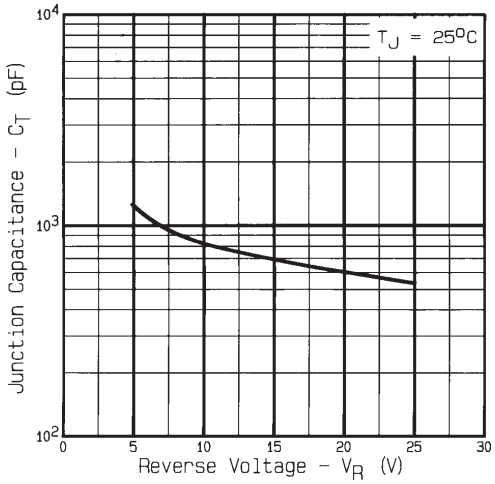

Fig. 3 - Typical Junction Capacitance Vs. Reverse Voltage

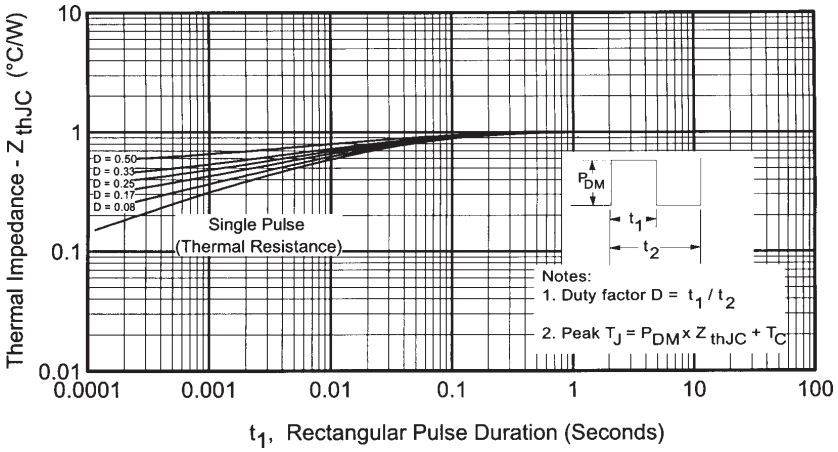

Fig. 4 - Max. Thermal Impedance Z_{thJC} Characteristics

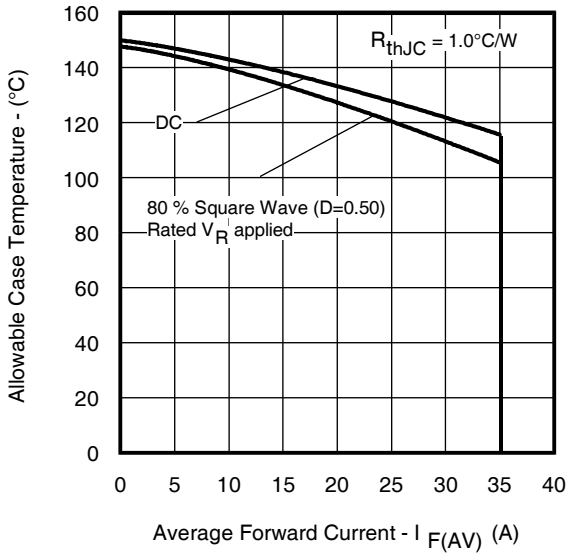

Fig. 5 - Max. Allowable Case Temperature Vs.
Average Forward Current

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