

DYNAMIC CHARACTERISTICS

APT60DQ100B_S(G)

Symbol	Characteristic	Test Conditions	MIN	TYP	MAX	UNIT
t_{rr}	Reverse Recovery Time	$I_F = 1A, di_F/dt = -100A/\mu s, V_R = 30V, T_J = 25^\circ C$	-	29		ns
t_{rr}	Reverse Recovery Time	$I_F = 60A, di_F/dt = -200A/\mu s, V_R = 667V, T_C = 25^\circ C$	-	255		
Q_{rr}	Reverse Recovery Charge		-	560		nC
I_{RRM}	Maximum Reverse Recovery Current		-	5	-	Amps
t_{rr}	Reverse Recovery Time	$I_F = 60A, di_F/dt = -200A/\mu s, V_R = 667V, T_C = 125^\circ C$	-	325		ns
Q_{rr}	Reverse Recovery Charge		-	2325		nC
I_{RRM}	Maximum Reverse Recovery Current		-	12	-	Amps
t_{rr}	Reverse Recovery Time	$I_F = 60A, di_F/dt = -1000A/\mu s, V_R = 667V, T_C = 125^\circ C$	-	160		ns
Q_{rr}	Reverse Recovery Charge		-	3790		nC
I_{RRM}	Maximum Reverse Recovery Current		-	38		Amps

THERMAL AND MECHANICAL CHARACTERISTICS

Symbol	Characteristic / Test Conditions	MIN	TYP	MAX	UNIT
$R_{\theta JC}$	Junction-to-Case Thermal Resistance			.46	$^\circ C/W$
W_T	Package Weight		0.22		oz
			5.9		g
Torque	Maximum Mounting Torque			10	lb•in
				1.1	N•m

Microsemi reserves the right to change, without notice, the specifications and information contained herein.

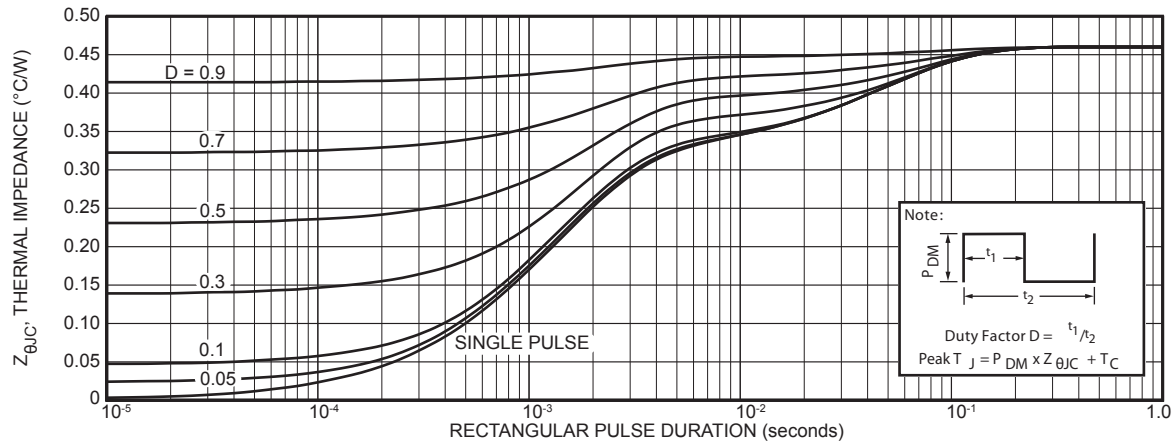


FIGURE 1. MAXIMUM EFFECTIVE TRANSIENT THERMAL IMPEDANCE, JUNCTION-TO-CASE vs. PULSE DURATION

TYPICAL PERFORMANCE CURVES

APT60DQ100B_S(G)

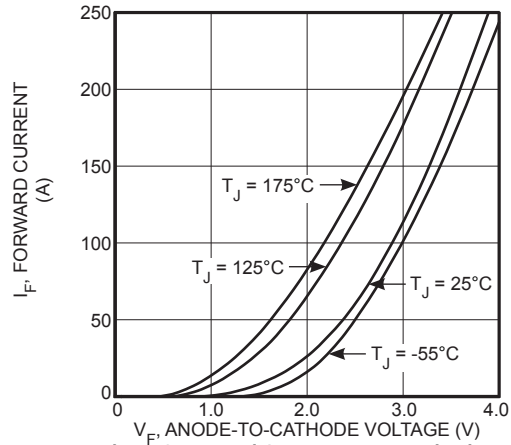


Figure 2. Forward Current vs. Forward Voltage

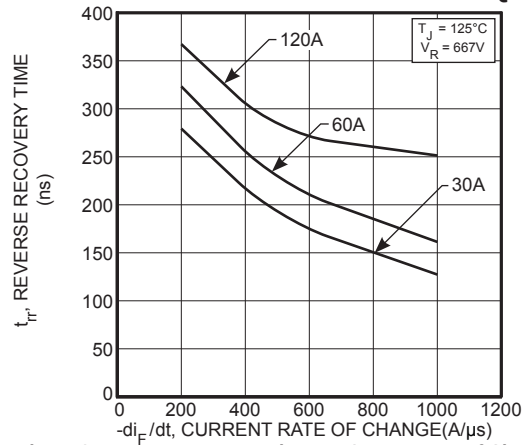


Figure 3. Reverse Recovery Time vs. Current Rate of Change

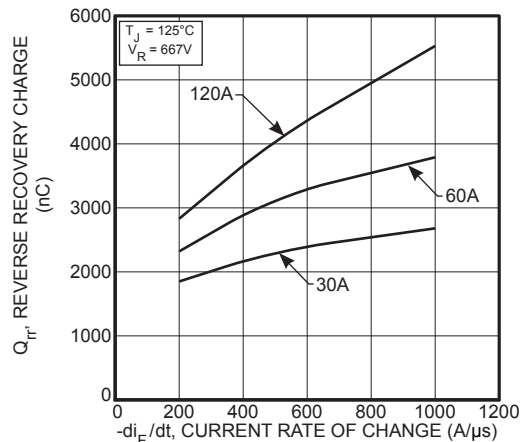


Figure 4. Reverse Recovery Charge vs. Current Rate of Change

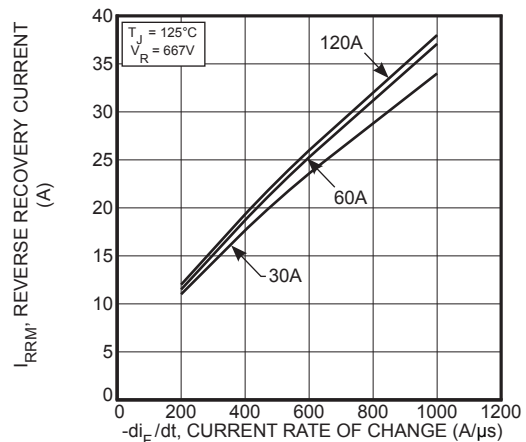


Figure 5. Reverse Recovery Current vs. Current Rate of Change

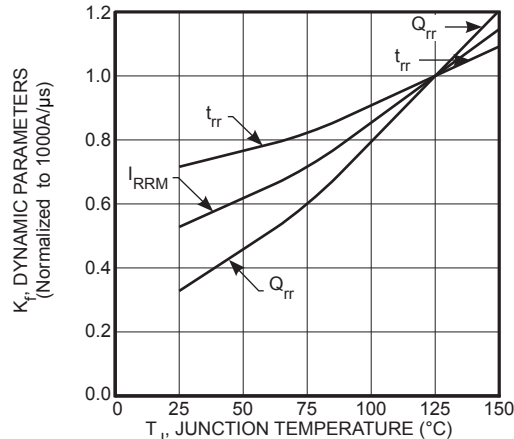


Figure 6. Dynamic Parameters vs. Junction Temperature

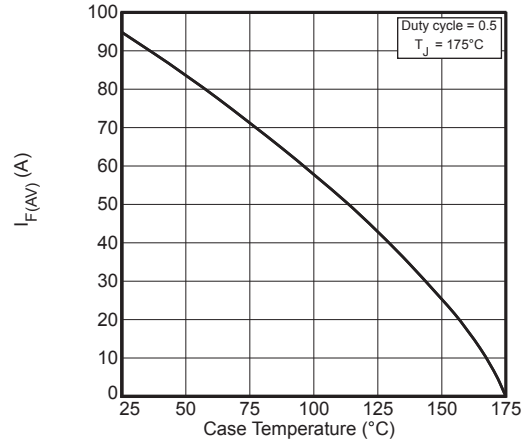


Figure 7. Maximum Average Forward Current vs. Case Temperature

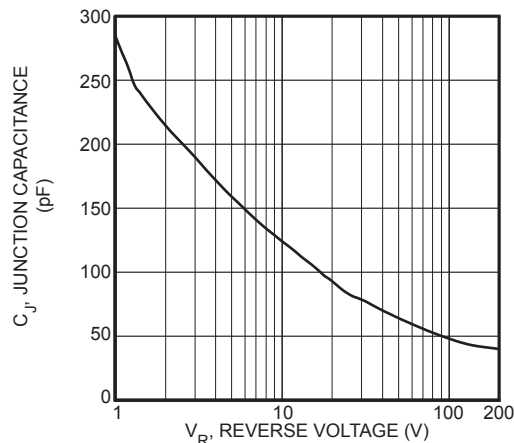
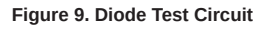


Figure 8. Junction Capacitance vs. Reverse Voltage



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