



245NQ400(R)-1

Technical Data
Data Sheet N1792, Rev. B

Green Products

Maximum Ratings:

Characteristics	Symbol	Condition	Max.	Units
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	-	400	V
Average Forward Current	$I_{F(AV)}$	50% duty cycle @ $T_C = 100^\circ\text{C}$, rectangular wave form	240	A
Peak One Cycle Non-Repetitive Surge Current (per leg)	I_{FSM}	8.3 ms, half Sine pulse	1600	A

Electrical Characteristics:

Characteristics	Symbol	Condition	Typ.	Max.	Units
Forward Voltage Drop(per leg)*	V_{F1}	@ 135A, Pulse, $T_J = 25^\circ\text{C}$	0.968	-	V
	V_{F2}	@ 240A, Pulse, $T_J = 25^\circ\text{C}$	1.113	1.50	V
	V_{F3}	@ 270A, Pulse, $T_J = 25^\circ\text{C}$	1.177	-	V
Reverse Current (per leg) *	I_R	@ $V_R = \text{rated } V_R$ $T_J = 25^\circ\text{C}$	0.6	30	μA
Junction Capacitance (per leg)	C_T	@ $V_R = 5\text{V}$, $T_C = 25^\circ\text{C}$ $f_{SIG} = 1\text{MHz}$	1350	2000	pF
Reverse Recovery Time	t_{rr}	$I_F = 0.5\text{A}$, $I_R = 1\text{A}$, and $I_{RR} = 0.25\text{A}$	110	150	ns
	t_{rr}	$I_F = 1.0\text{A}$, $di/dt = 200\text{A}/\mu\text{s}$, $V_R = 30\text{V}$	96	-	ns

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

Thermal-Mechanical Specifications:

Characteristics	Symbol	Condition	Specification	Units	
Junction Temperature	T_J	-	-55 to +150	$^\circ\text{C}$	
Storage Temperature	T_{stg}	-	-55 to +150	$^\circ\text{C}$	
Typical Thermal Resistance Junction to Case	$R_{\theta JC}$	DC operation	0.50	$^\circ\text{C}/\text{W}$	
Typical Thermal Resistance, case to Heat Sink	$R_{\theta cs}$	Mounting surface, smooth and greased	0.012	$^\circ\text{C}/\text{W}$	
Mounting Torque	T_M	Non-lubricated threads	Mounting Torque Base	23(min) 29(max)	Kg-cm
			Terminal Torque	35(min) 46(max)	
Approximate Weight	wt	-	25.6	g	
Case Style	PRM1-1				

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