Ultra Low Gate Charge ($Q_{G(tot)}$ = 50 nC)

- Low Output Capacitance (C_{oss} = 89 pF)
- 100% Avalanche Tested
- AEC−€ °C

			V_{GSop}	−5/+18	V
Continuous Drain Current (Note 1)	Steady State	T_C = 25°C	I_D	31	A
Power Dissipation (Note 1)			P_D	129	W
Continuous Drain Current (Note 1)	Steady State	T_C = 100°C	I_D	22	A
Power Dissipation (Note 1)			P_D	64	W
Pulsed Drain Current (Note 2)	T_C = 25°C		I_{DM}	97	A
Operating Junction and Storage Temperature Range			T_J, T_{stg}	−55 to +175	°C
Source Current (Body Diode)			I_S	26	A
Single Pulse Drain−to−Source Avalanche Energy ($I_{L(pk)}$ = 9.4 A, L = 1 mH) (Note 3)			E_{AS}	44	mJ
Maximum Lead Temperature for Soldering (1/8″ from case for 5 s)			T		

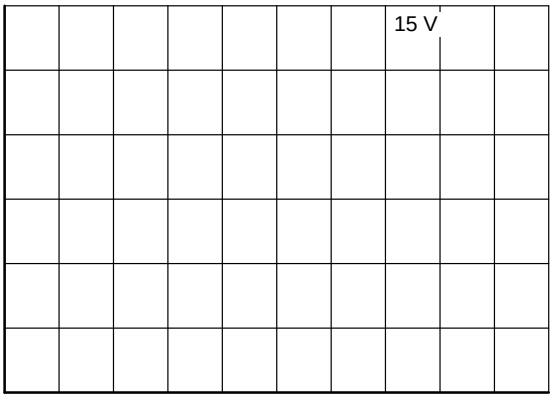
THERMAL RESISTANCE MAXIMUM RATINGS

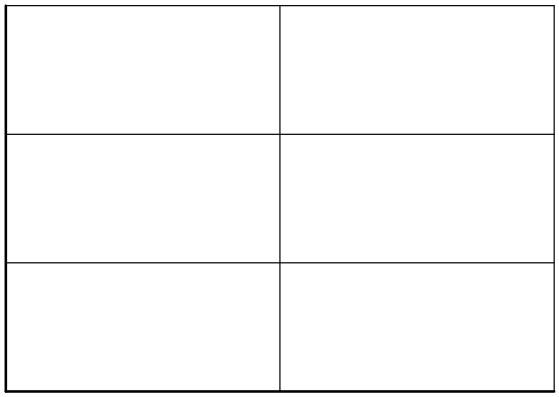
Parameter	Symbol	Max	Unit
Junction ïto ïCase ï Steady State (Note 1)	R_{JC}	1.16	°C/W
Junction ïto ïAmbient ï Steady State (Note 1)	R_{JA}	40	

(T_J = 25°C unless otherwise specified) (continued)

–						
Reverse Recovery Time	t_{RR}	V_{GS} = −5/18 V, I_{SD} = 12 A, dI_S/dt = 1000 A/μs	−	15	−	ns
Reverse Recovery Charge	Q_{RR}		−	62	−	nC
Reverse Recovery Energy	E_{REC}		−	6.5	−	μJ
Peak Reverse Recovery Current	I_{RRM}		−	8	−	A
Charge time	Ta		−	8	−	ns
Discharge time	Tb		−	7	−	ns

Product parametric performance is indicated in the Electrical Characteristics for the listed test conditions, unless otherwise noted. Product performance may not be indicated by the Electrical Characteristics if operated under different conditions.





V_{DS}, DRAIN−

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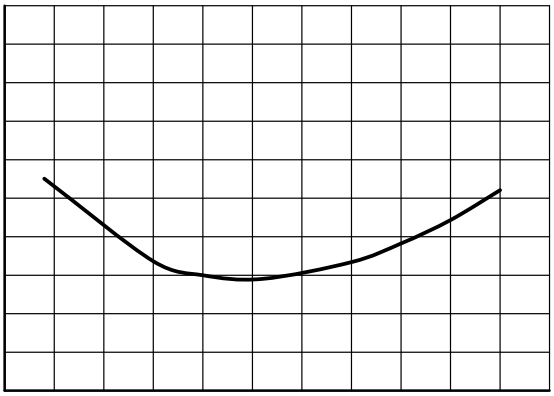

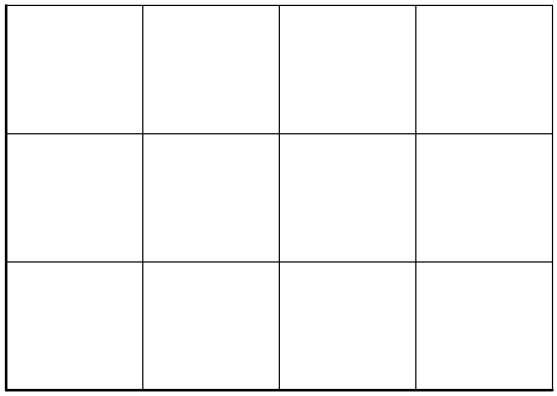

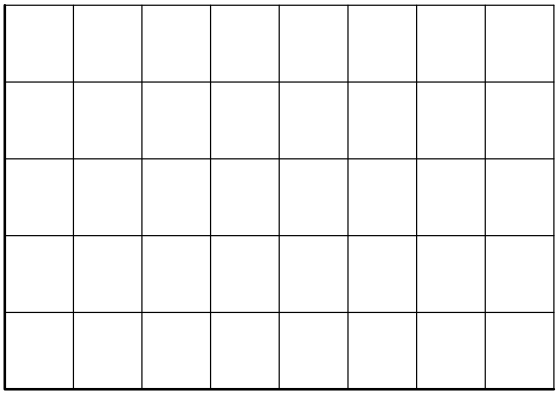

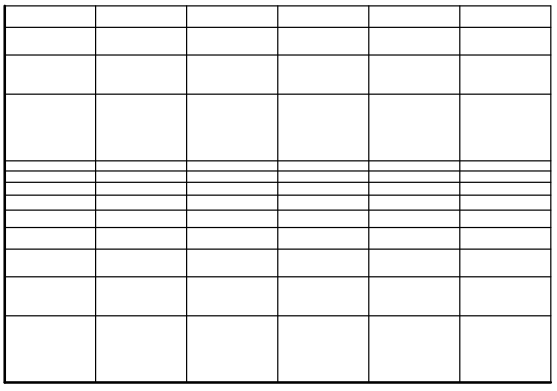

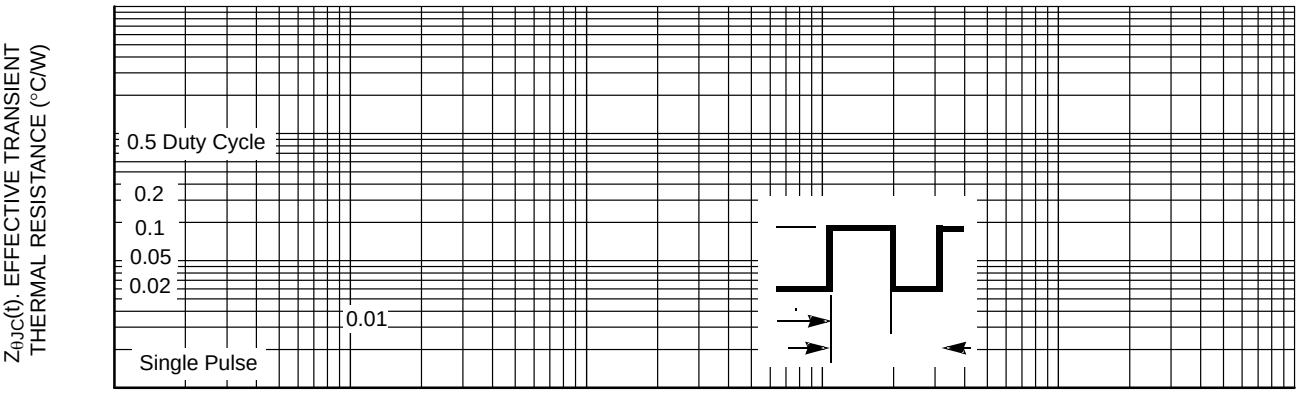
$Z_{\theta JC}(t)$, EFFECTIVE TRANSIENT THERMAL RESISTANCE (°C/W)
0.5 Duty Cycle
0.2
0.1
0.05
0.02
0.01
Single Pulse
t, RECTANGULAR PULSE DURATION (sec)

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