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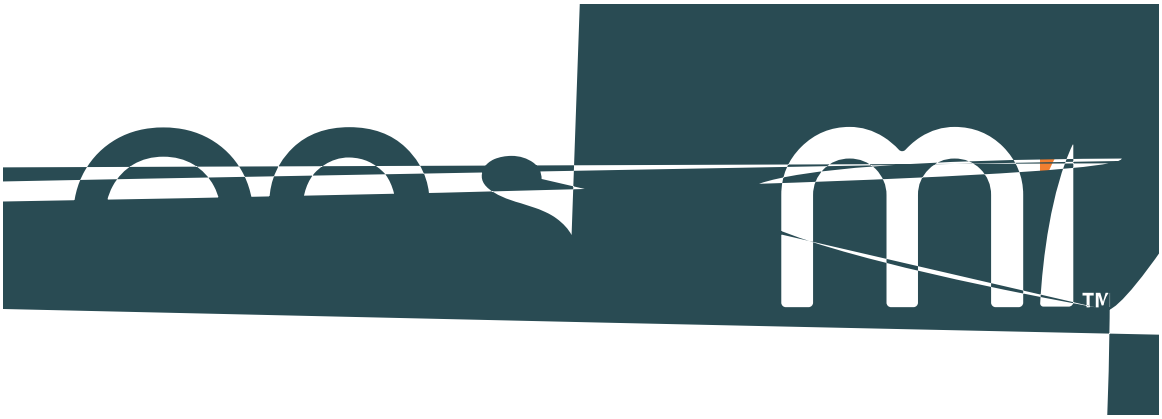

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Related
Devices


Spice
Models

Maximum Ratings

Parameter	Symbol	Test Conditions	Value	Units
Drain-source voltage	V_{DS}		650	V
Gate-source voltage	V_{GS}	DC	-25 to +25	V
Continuous drain current [1]	I_D	T_C = 25°C	85	A
		T_C = 100°C	62	A
MEMC ETQq192.31 9.05.17 55.58430.11 648.7 Tc	I_{DM}		230	A
	E_{AS}	L=15mH, I_{AS} =4A	120	mJ
Power dissipation	P_{tot}	T_C = 25°C	441	W
Maximum junction temperature	$T_{J,max}$		175	°C
Operating and storage temperature	T_J, T_{STG}		-55 to 175	°C
Max. lead temperature for soldering, 1/8ĩ from case for 5 seconds	T_L		250	°C

1. Limited by $T_{J,max}$
2. Pulse width t_p limited by $T_{J,max}$
3. Starting T_J = 25°C

Thermal Characteristics

Parameter	Symbol	Test Conditions	Value			Units
			Min	Typ	Max	
Thermal resistance, junction-to-case	R_q			0.26	0.34	°C/W

Typical Performance - Dynamic

		Value		Units
		Typ	Max	
C_{iss}		1500		
C_{oss}		320		
C_{rss}		2.3		
C		230		pF
		520		pF
		18.5		mJ
		51		
		11		
		19		
		44		
		26		
		63		
		17		
	ON	657		
	E_{OFF}	330		
E		987		

tics at T_J =

$_{\mu}d^{r}$

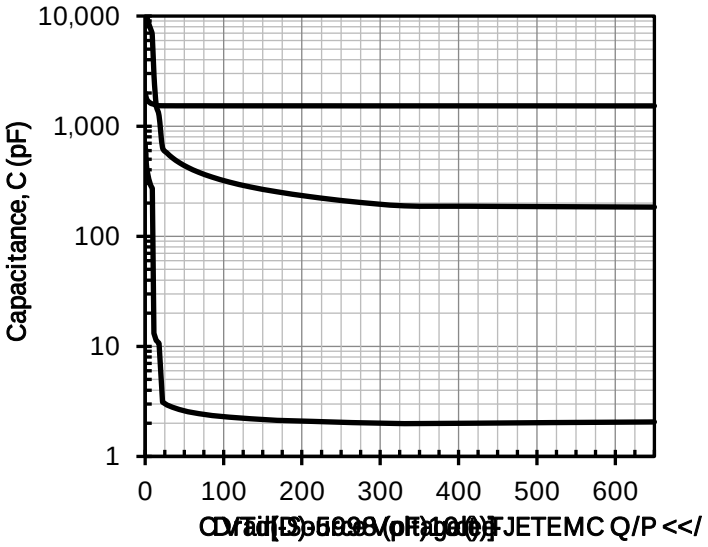

Figure 13. Typical capacitances at f = 100kHz and V_{GS} = 0V

Figure 14. DC drain current derating

Figure 15. Total power dissipation

Figure 16. Maximum transient thermal impedance

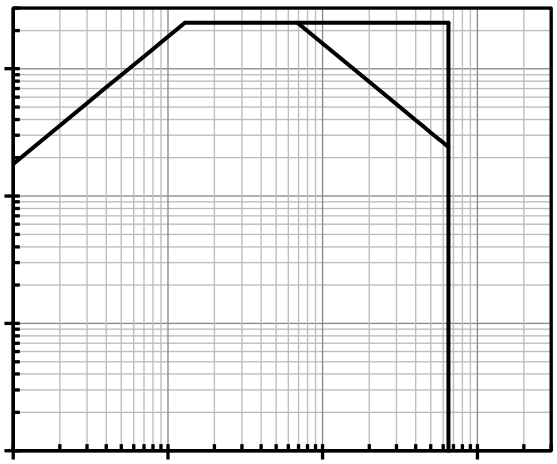

Figure 17. Safe operation area at T_C = 25°C, D = 0, Parameter t_p

Figure 18. Clamped inductive switching energy vs. drain current at T_J = 150°C

Figure 19. Clamped inductive switching turn-on energy vs. R_{G,EXT_ON}

Figure 20. Clamped inductive switching turn-off energy vs. R_{G,EXT_OFF}

TO-247-3L PACKAGE OUTLINE, PART MARKING AND TUBE SPECIFICATIONS

PACKAGE OUTLINE

SYM				
	MIN	MAX	MIN	MAX
A	0.185	0.209	4.699	5.309
A1	0.087	0.102	2.21	2.61
A2	0.059	0.098	1.499	