THERMAL CHARACTERISTICS

Parameter	Symbol	Value	Unit
Thermal Resistance, Junction to Case (Note 3)	$R_{\theta JC}$	0.57	°C/W
Thermal Resistance, Junction to Ambient (Note 3)	$R_{\theta JA}$	40	

3. The entire application environment impacts the thermal resistance values shown, they are not constants and are only valid for the particular conditions noted.

RECOMMENDED OPERATING CONDITIONS

Parameter	Symbol

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
SWITCHING CHARACTERISTICS						
Turn−On Delay Time	$t_{d(ON)}$	V_{GS} = −3/18 V, I_D = 20 A, V_{DD} = 400 V, R_G = 4.7 Ω, T_J = 175°C (Note 4, 5)	−	9.6	−	ns
Turn−Off Delay Time	$t_{d(OFF)}$		−	41	−	
Rise Time	t_r		−	14	−	
Fall Time	t_f		−	12	−	
Turn−On Switching Loss	GS E_{ON}	−3 V, I	=	51	=	μJ
Turn−Off Switching Loss	E_{OFF}		−	45	−	
Total Switching Loss	E_{TOT}		−	96	−	
SOURCE−TO−DRAIN DIODE CHARACTERISTICS						
Forward Diode Voltage	V_{SD}	I_{SD} = 20 A, V_{GS} = −3 V, T_J = 25°C	=	4.5	6.0	V
		I = 20 A, V = −3 V, T = 175°	−		−	

D^{2}PAK7 (TO−263−7L HV)

CASE 418BJ
ISSUE B

DATE 16 AUG 2019

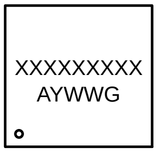
A

c2

H

C

GENERIC MARKING DIAGRAM*



XXXX = Specific Device Code
A = Assembly Location
Y = Year
WW = Work Week
G = Pb−Free Package

*This information is generic. Please refer to device data sheet for actual part marking. Pb−Free indicator, “G” or microdot “▪”, may or may not be present. Some products may not follow the Generic Marking.