THERMAL CHARACTERISTICS

Parameter	Symbol	Value	Unit
Thermal Resistance, Junction−to−Case (Note 3)	$R_{\theta JC}$	0.61	°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	Value	Unit
Operation Values of Gate−to−Source Voltage	V_{GSop}	−5...−3 +18	V

Functional operation above the stresses listed in the Recommended Operating Ranges is not implied. Extended exposure to stresses beyond the Recommended Operating Ranges limits may affect device reliability.

ELECTRICAL CHARACTERISTICS

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, V_{DD} = 400 V, I_D = 20 A, R_G = 4.7 Ω, T_J = 175°C (Notes 4 and 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	E_{ON}		−	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_{SD} = 20 A, V_{GS} = −3 V, T_J = 175°C (Note 5)	−	4.2	−	
Reverse Recovery Time	t_{RR}	V_{GS} = −3 V, I_S = 20 A, dI/dt = 1000 A/μs, V_{DS} = 400 V, T_J = 25°C (Note 5)	−	19	−	ns
Charge Time	t_a		−	11	−	
Discharge Time	t_b		−	8	−	
Reverse Recovery Charge	Q_{RR}		−	97	−	nC
Reverse Recovery Energy	E_{REC}		−	8.7	−	μJ
Peak Reverse Recovery Current	I_{RRM}		−	11	−	A

Product parametric performance is indicated in the Electrical Characteristics for the listed test conditions, unless otherwise noted. Product performance may not h1n5.83 .9071 refBT/TT4 1 Tf8 0 0 8 456.8315 47288 458.5323 Tm-0743 Tc(11)Tess otherwise noted. ProductEON/EOFF0 Tsu

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TO−247−4LD
CASE 340CJ
ISSUE A

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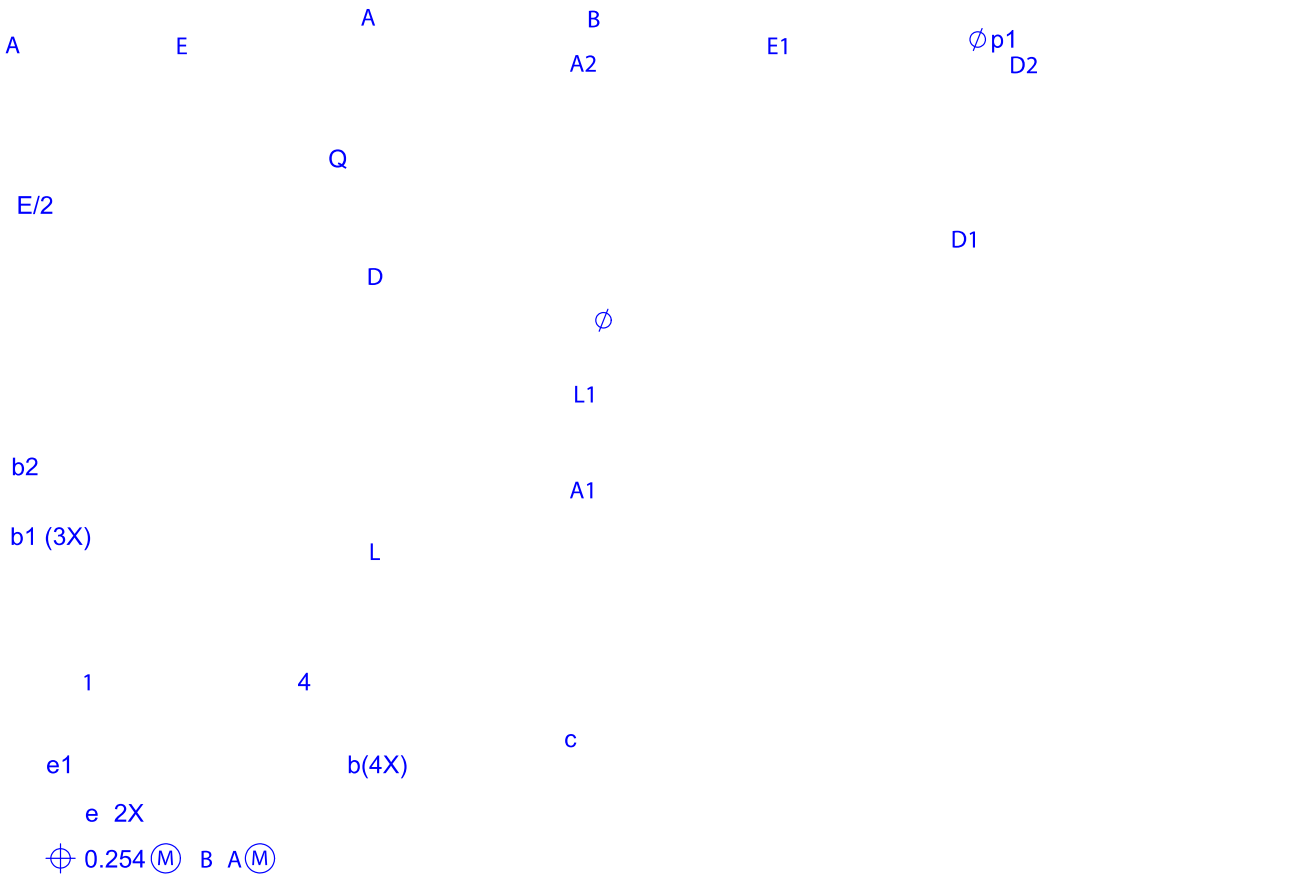

TO−247−4LD
CASE 340CJ
ISSUE A

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