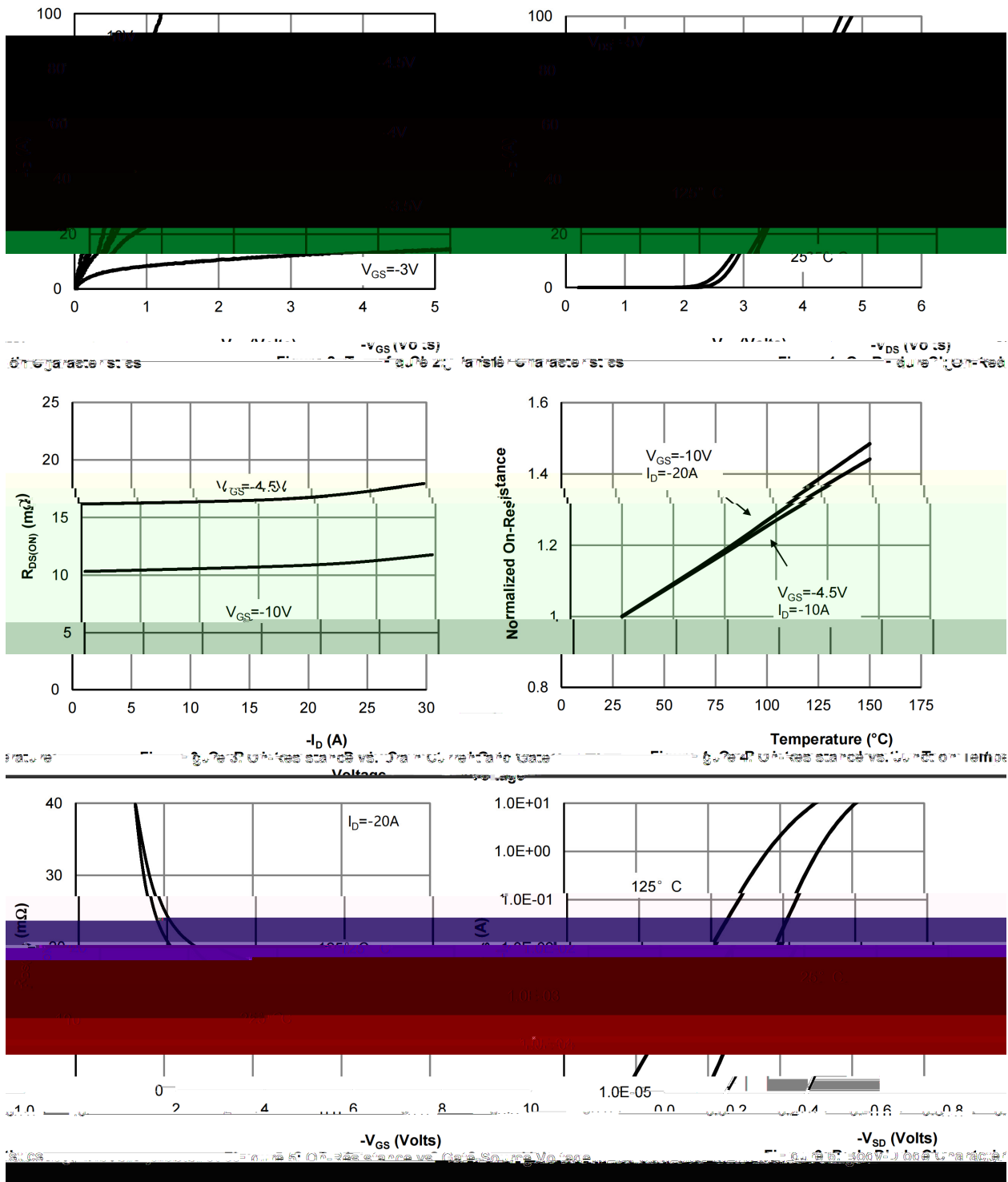


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PDFN3×3A-8L P MOS

Parameter		Symbol	Rating	Unit
Drain-Source Voltage		V_{DS}	-30	V
Drain Current		$I_D(T_C=25^\circ\text{C})$	-35	A
Drain Current - Pulsed		I_{DM}	-80	A
Gate-Source Voltage		V_{GS}	± 20	V
Avalanche Current		I_{AS}	17	A
Single Pulsed Avalanche Energy		E_{AS}	151	mJ
Power Dissipation		$P_D(T_C=25^\circ\text{C})$	28	W
Operating and Storage Temperature Range		T_J, T_{stg}	-55 to 150	
Junction-to-Ambient	$t \leq 10$	$R_{\theta JA}$	25	/W
Junction-to-Ambient	Steady-State		55	
Junction-to-Case	Steady-State	$R_{\theta JC}$	4.5	

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	BV_{DSS}	$I_D = -250\mu A$ $V_{GS} = 0V$	-30	-36		V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS} = -30V$ $V_{GS} = 0V$			-1	μA
Gate-Body leakage current	I_{GSS}	$V_{DS} = 0V$ $V_{GS} = \pm 20V$			± 100	nA
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS} = V_{GS}$ $I_D = -250\mu A$	-1.0	-1.7	-2.5	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	$V_{GS} = -10V$ $I_D = -20A$		10.5	12	m
		$V_{GS} = -4.5V$ $I_D = -10A$		16.5	18	
Diode Forward Voltage	V_{SD}	$I_S = -1A$ $V_{GS} = 0V$			-1.2	V
Gate resistance	R_g	$V_{GS} = 0V$ $V_{DS} = 0V$ $f = 1MHz$		7.5	10	
Input Capacitance	C_{iss}	$V_{GS} = 0V$ $V_{DS} = -25V$ $f = 1MHz$		2100		pF
Output Capacitance	C_{oss}			340		
Reverse Transfer Capacitance	C_{rss}			210		
Total Gate Charge	$Q_g(10V)$	$V_{GS} = -10V$ $V_{DS} = -15V$ $I_D = -17A$		35		nC
Total Gate Charge	$Q_g(4.5V)$			17		
Gate-Source Charge	Q_{gs}			5.7		
Gate-Drain Charge	Q_{gd}			8.8		
Turn-on Delay Time	$t_{d(on)}$	$V_{GS} = -10V$ $V_{DS} = -15V$ $R_L = 0.9\Omega$ $R_{GEN} = 3\Omega$		11		ns
Turn-on Rise Time	t_r			7.5		
Turn-off Delay Time	$t_{d(off)}$			43.5		
Turn-off Fall Time	t_f			17.5		



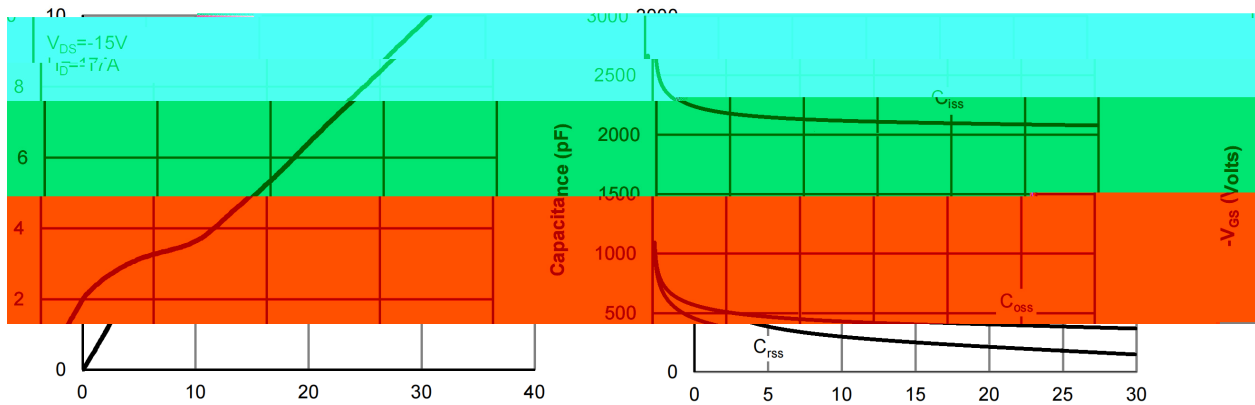


Figure 7: Gate-Charge Characteristics

Figure 8: Capacitance Characteristics

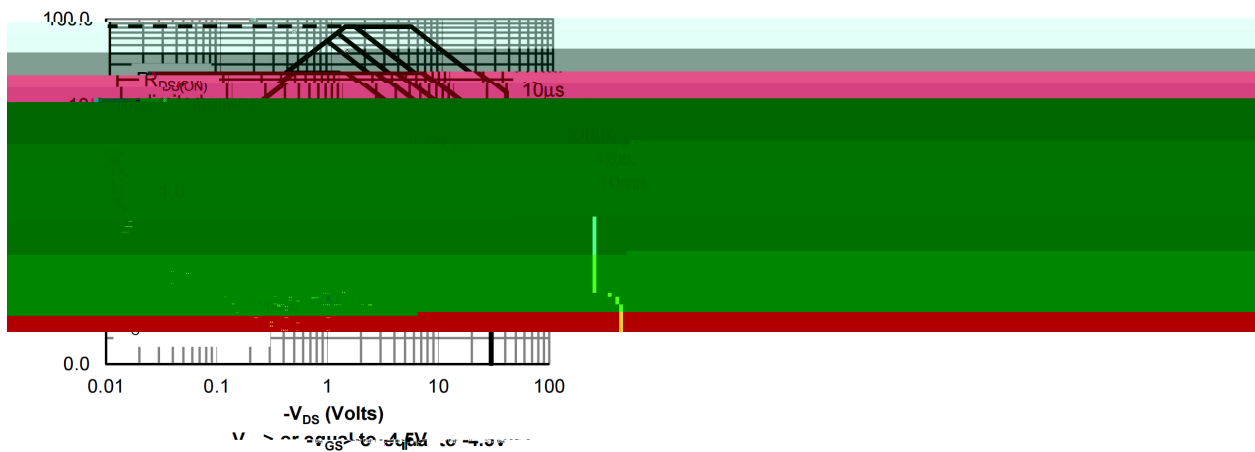


Figure 9: Maximum Forward Biased Safe Operating Area

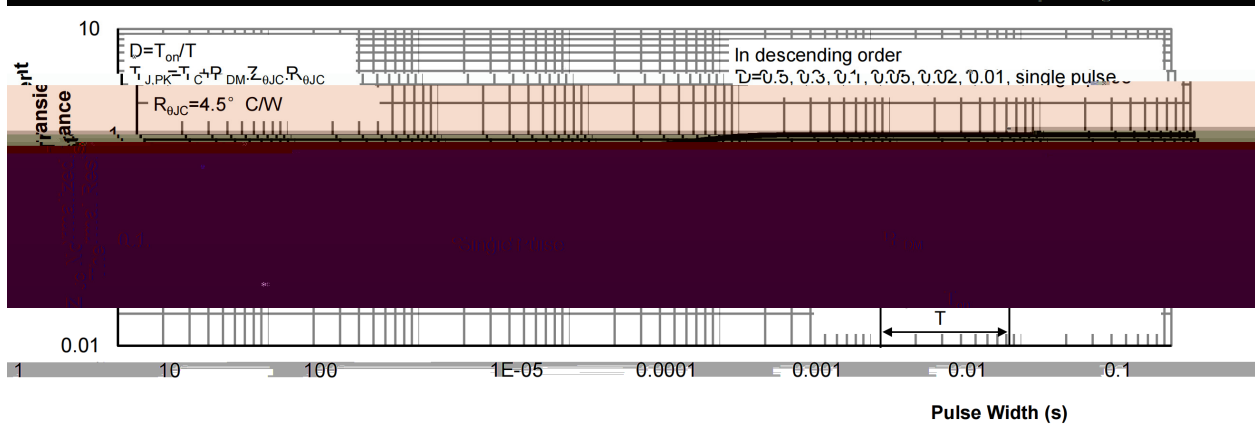
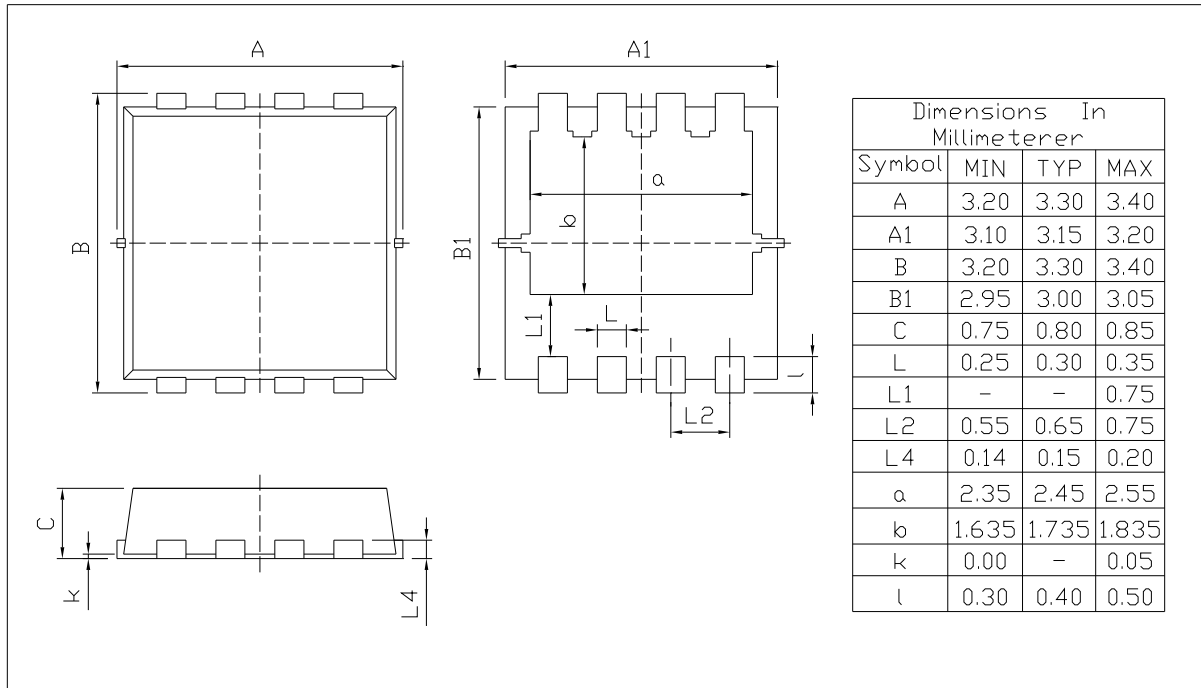


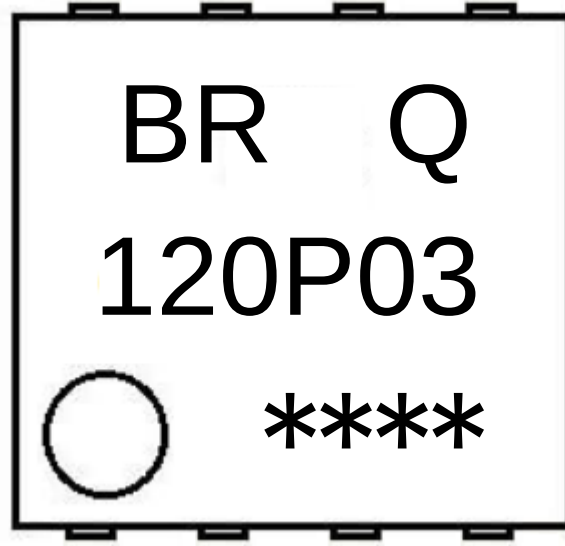
Figure 10: Normalized Maximum Transient Thermal Impedance

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Unit:mm



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BR

120P03

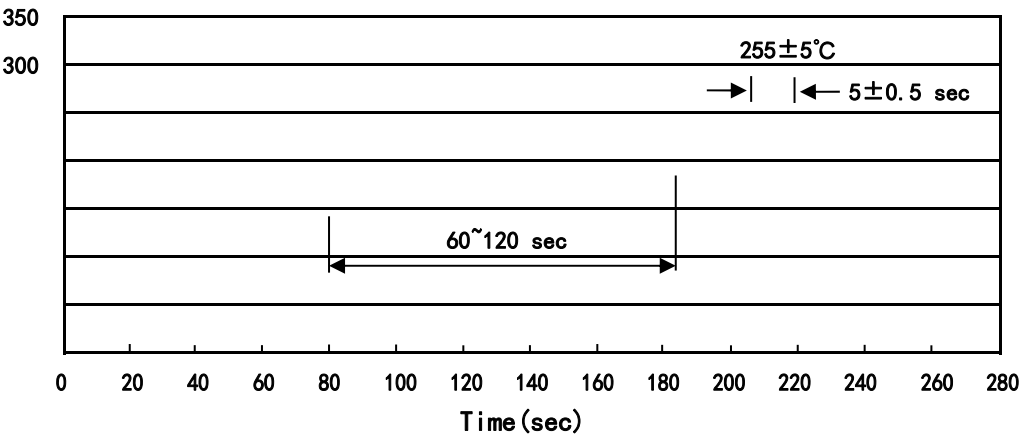
Note:

BR: Company Code

120P03: Product Type Code

*****: Lot No. Code, code change with Lot No

Temperature Profile for IR Reflow Soldering(Pb-Free)



Note:

- | | | | | | |
|---|-------|-----|-----------|---|--|
| 1 | 150 | 200 | 60 | 120sec; | 1.Preheating:150~200 , Time:60~120sec. |
| 2 | 255±5 | | 5±0.5sec; | 2.Peak Temp.:255±5 , Duration:5±0.5sec. | |
| 3 | | 2 | 10 /sec. | 3. Cooling Speed: 2~10 /sec. | |

260±5 10±1 sec. Temp.:260±5 Time:10±1 sec

/ REEL

Package Type	Units					Dimension		(unit mm ³)
x								