

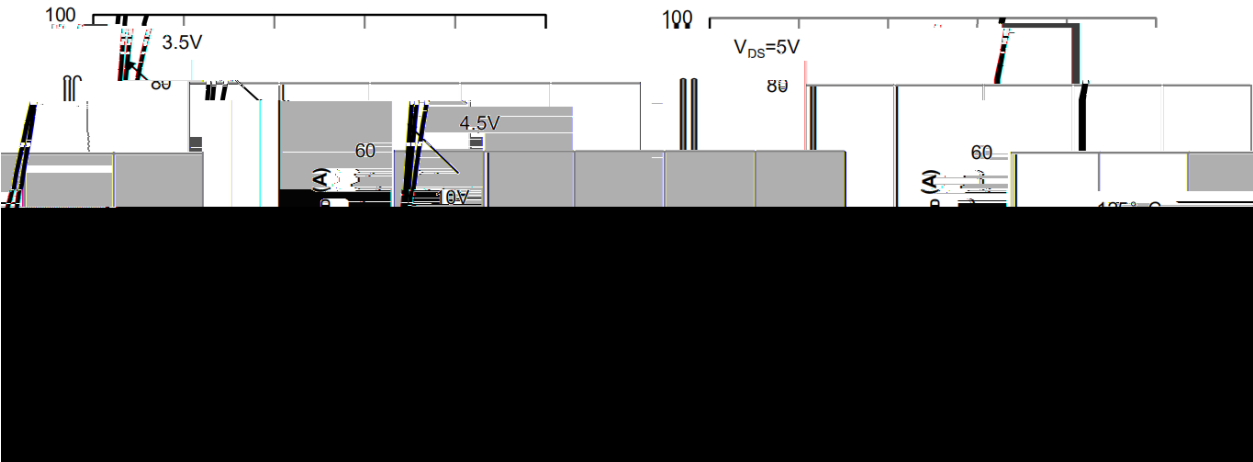
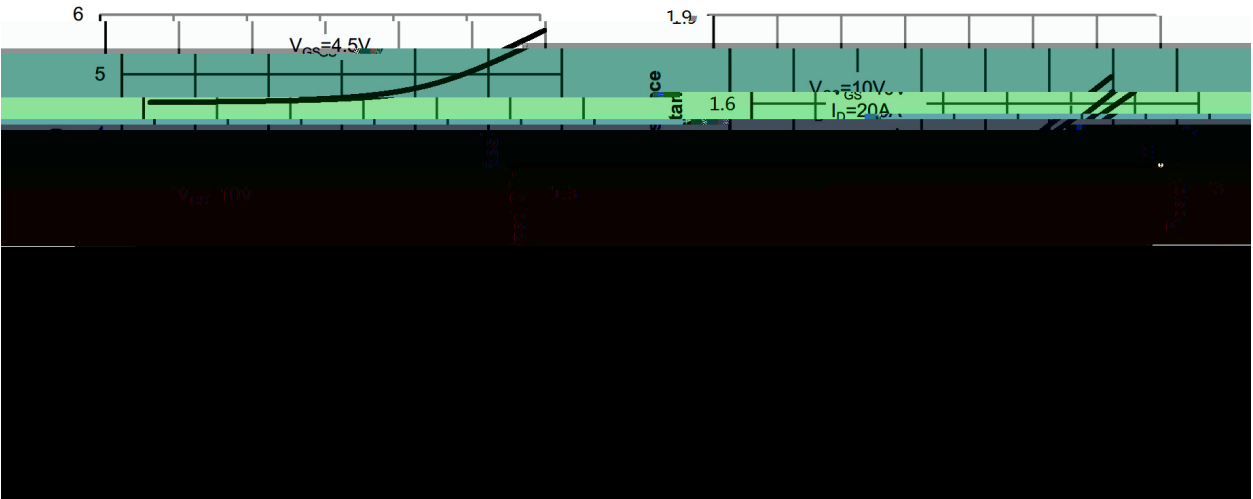
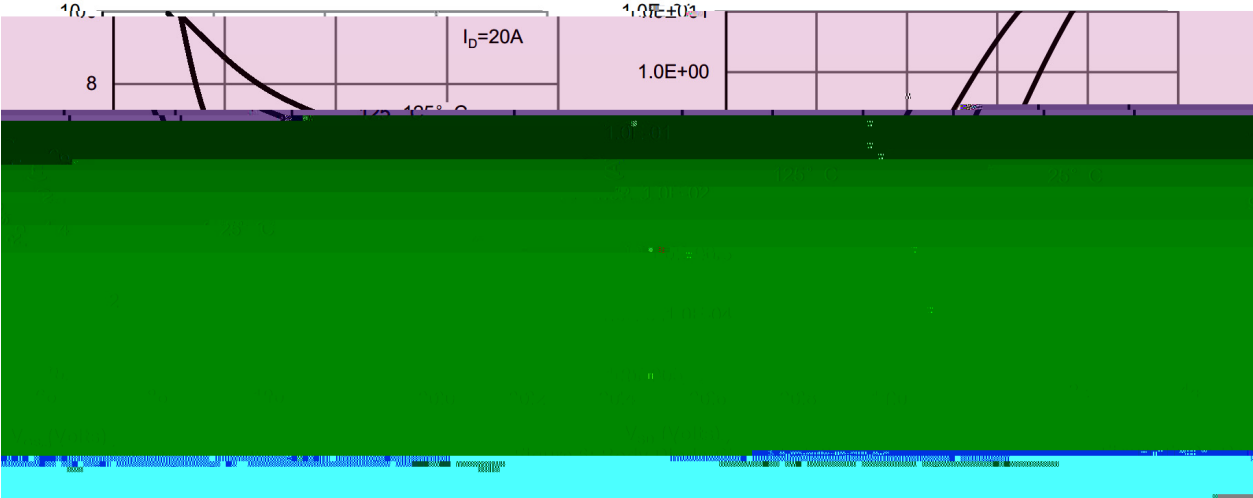
/ Absolute Maximum Ratings(Ta=25℃)

Parameter		Symbol	Rating	Unit
Drain-Source Voltage		V_{DS}	30	V
Drain Current		$I_D(T_c=25^\circ\text{C})$	74	A
Drain Current - Pulsed		I_{DM}	185	A
Gate-Source Voltage		V_{GS}	± 20	V
Single Pulsed Avalanche Energy		E_{AS}	449	mJ
Avalanche Current		I_{AS}	33.5	A
Power Dissipation		$P_D(T_c=25^\circ\text{C})$	35	W
Operating and Storage Temperature Range		T_J, T_{stg}	-55 to 150	
Junction-to-Ambient	$t \leq 10$	$R_{\theta JA}$	42	N/W
Junction-to-Ambient	Steady-State		78	
Junction-to-Case	Steady-State	$R_{\theta JC}$	3.6	

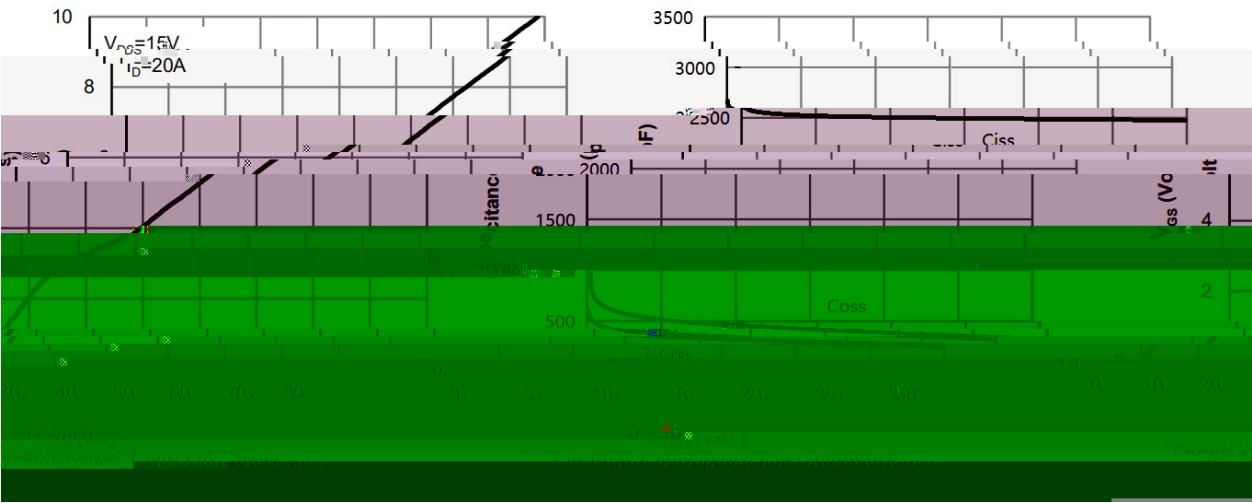
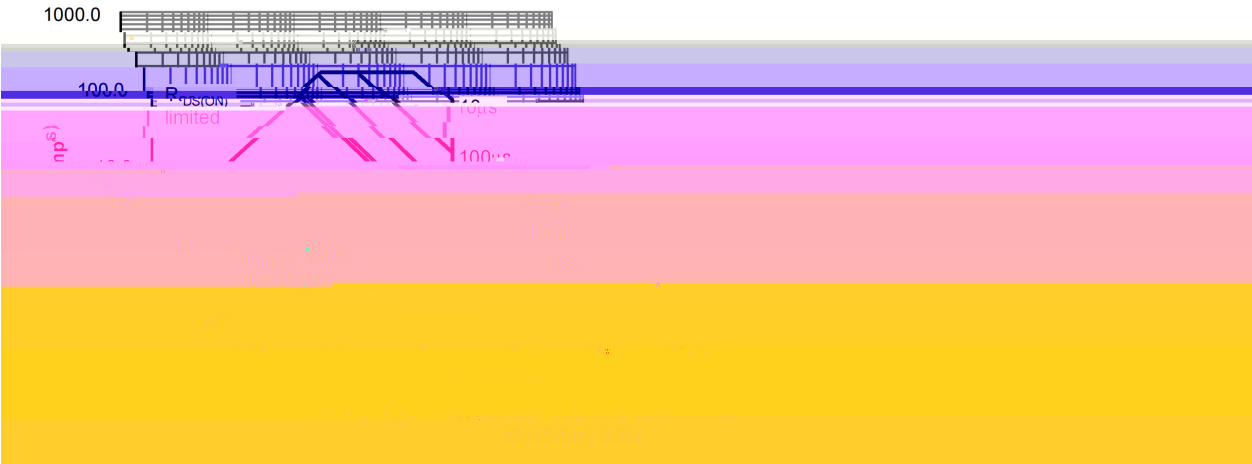
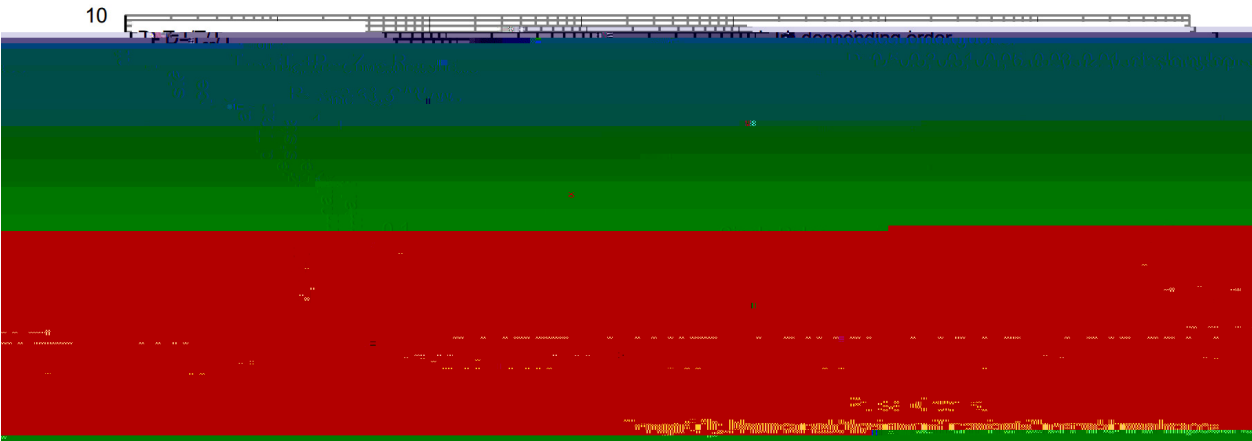
/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	BV_{DSS}	$V_{GS}=0V$ $I_D=250\mu A$	30	35		V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS}=30V$ $V_{GS}=0V$			1	μA
Gate-Body Leakage Current Forward	I_{GSS}	$V_{GS}=\pm 20V$ $V_{DS}=0V$			± 0.1	μA
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS}=V_{GS}$ $I_D=250\mu A$	1.0	1.5	3.0	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	$V_{GS}=10V$ $I_D=20A$		3.5	3.7	m Ω
		$V_{GS}=4.5V$ $I_D=10A$		4.5	6.5	m Ω
Drain-Source Diode Forward Voltage	V_{SD}	$V_{GS}=0V$ $I_S=1A$			1.2	V
Input Capacitance	C_{iss}	$V_{DS}=25V$ $V_{GS}=0V$ $f=1.0MHz$		2750		pF
Output Capacitance	C_{oss}			380		
Reverse Transfer Capacitance	C_{rss}			240		
Gate resistance	R_g	$V_{GS}=0V$ $V_{DS}=0V$ $f=1MHz$		2.6		Ω
Total Gate Charge	$Q_{g(10V)}$	$V_{GS}=10V$ $V_{DS}=15V$ $I_D=20A$		80		nC
Total Gate Charge	$Q_{g(4.5V)}$			35		
Gate Source Charge	Q_{gs}			13		
Gate Drain Charge	Q_{gd}			13		
Turn-On Delay Time	$t_{d(on)}$	$V_{GS}=10V$ $V_{DS}=15V$ $R_L=0.75\Omega$ $R_{GEN}=3.0\Omega$		6.7		ns
Turn-On Rise Time	t_r			3.8		
Turn-Off Delay Time	$t_{d(off)}$			32		
Turn-Off Fall Time	t_f			5.2		

/ Electrical Characteristic Curve



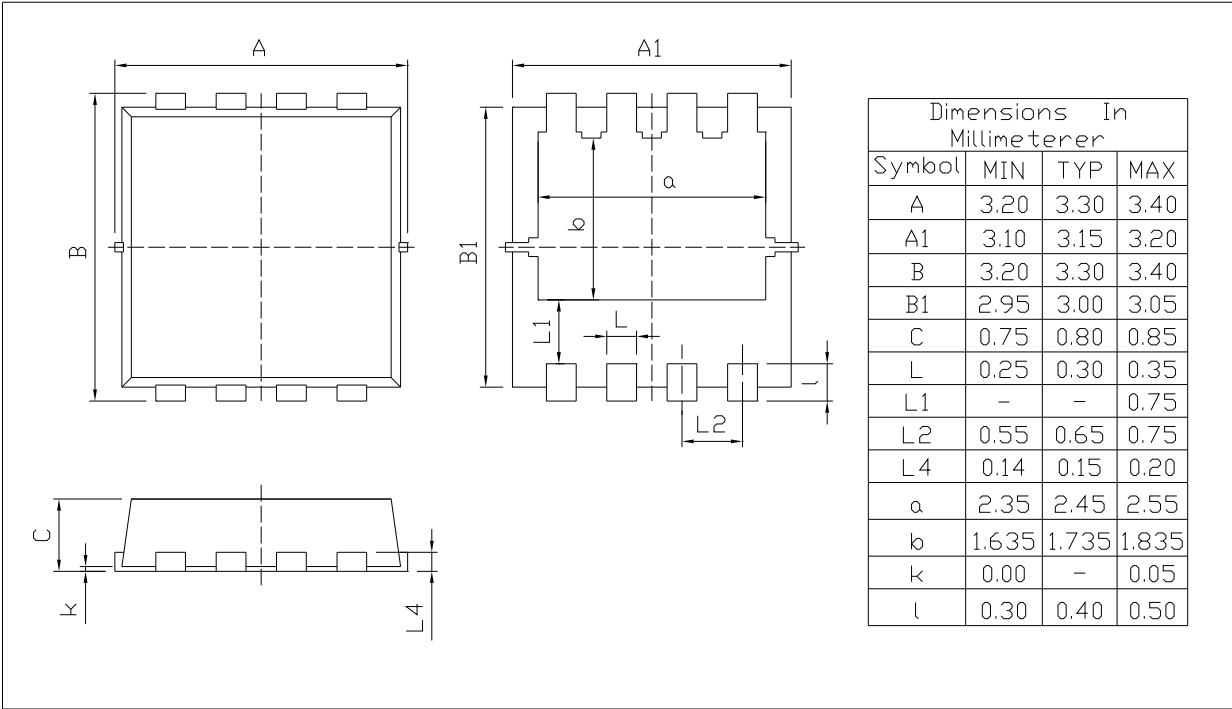
/ Electrical Characteristic Curve



/ Package Dimensions

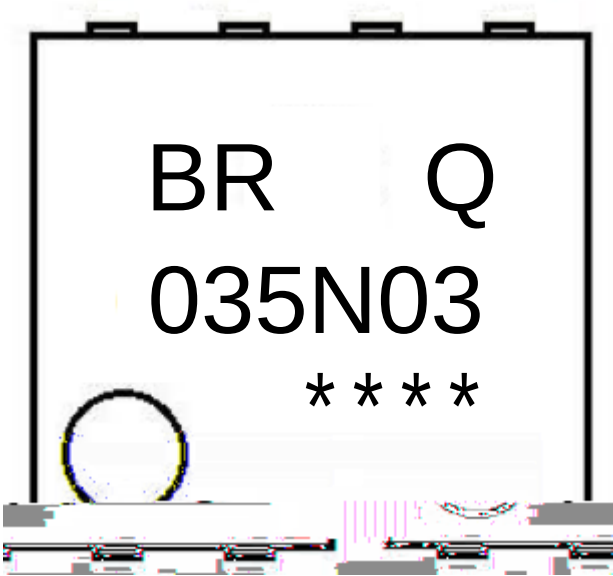
PDFN3X3A-8L

Unit:mm



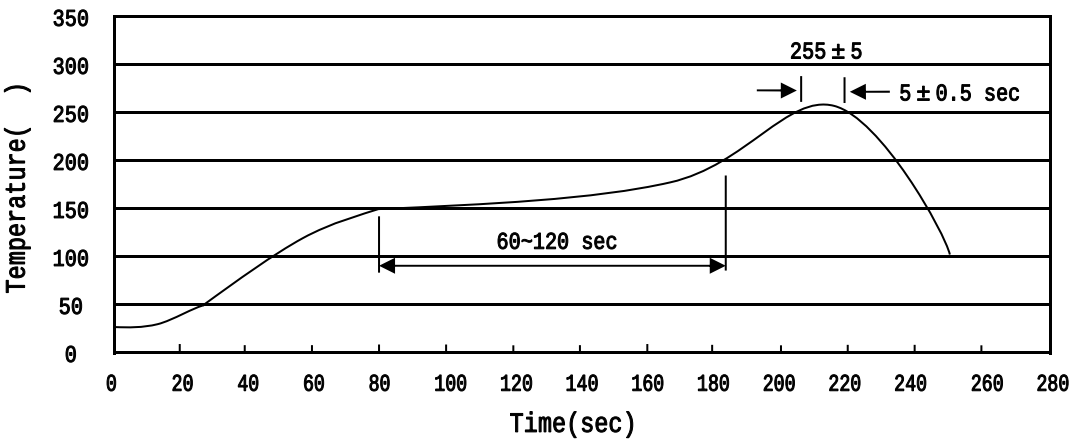
Rev.00 202011

/ Marking Instructions



BR	Company Code
Q	Automobile halogen-free product Code
035N03	Product Type Code
****	Lot No. Code, code change with Lot No

() / Temperature Profile for IR Reflow Soldering(Pb-Free)



注意

Note:

1. 预加热: 150~200 °C, Time: 60~120sec;
2. 峰值温度: 255 ± 5 °C, Duration: 5 ± 0.5sec;
3. 冷却速度: 2~10 °C/sec.

/ Resistance to Soldering Heat Test Conditions

锡焊温度: 260 ± 5 °C, 时间: 10 ± 1 sec. Temp.: 260 ± 5 °C Time: 10 ± 1 sec

/ Packaging SPEC.

包装形式 / REEL

Package Type	Units					Dimension (unit mm ³)		
	Units/Reel	Reels/Inner Box	Units/Inner Box	Inner Boxes/Outer Box	Units/Outer Box	Reel	Inner Box	Outer Box
PDFN3×3A-8L	5,000	2	10,000	6	60,000	13 ϕ × 12	360 × 360 × 50	380 × 335 × 366

/ Notices