



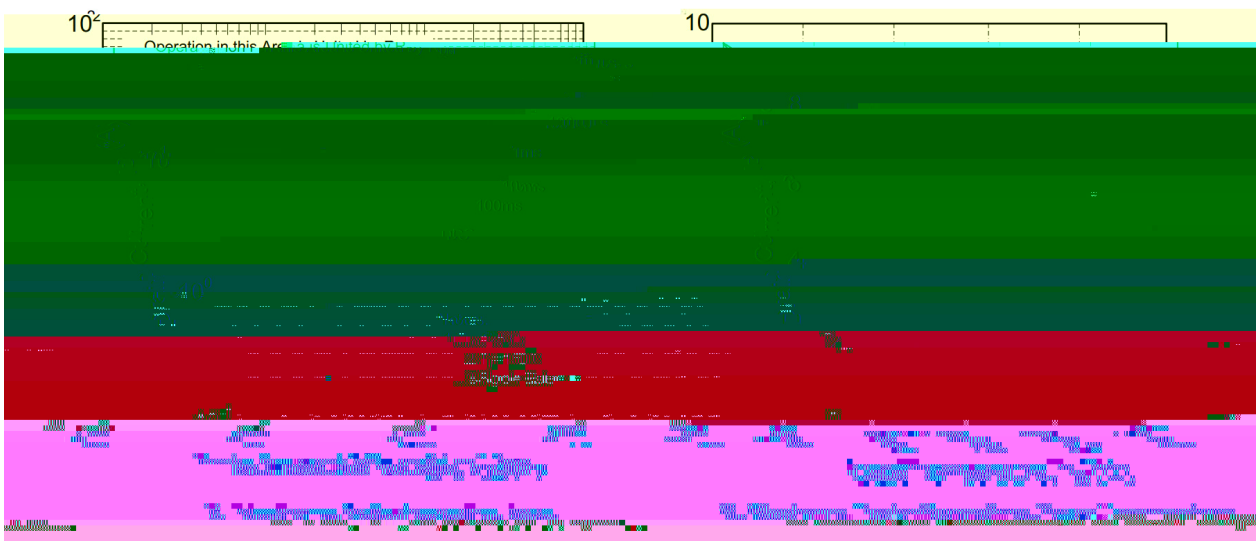
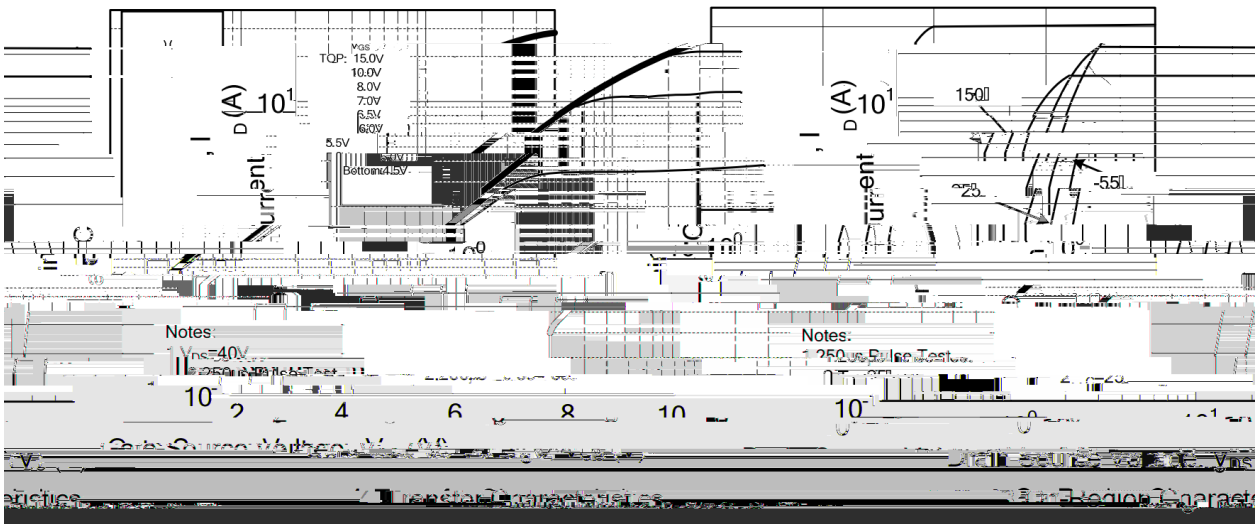
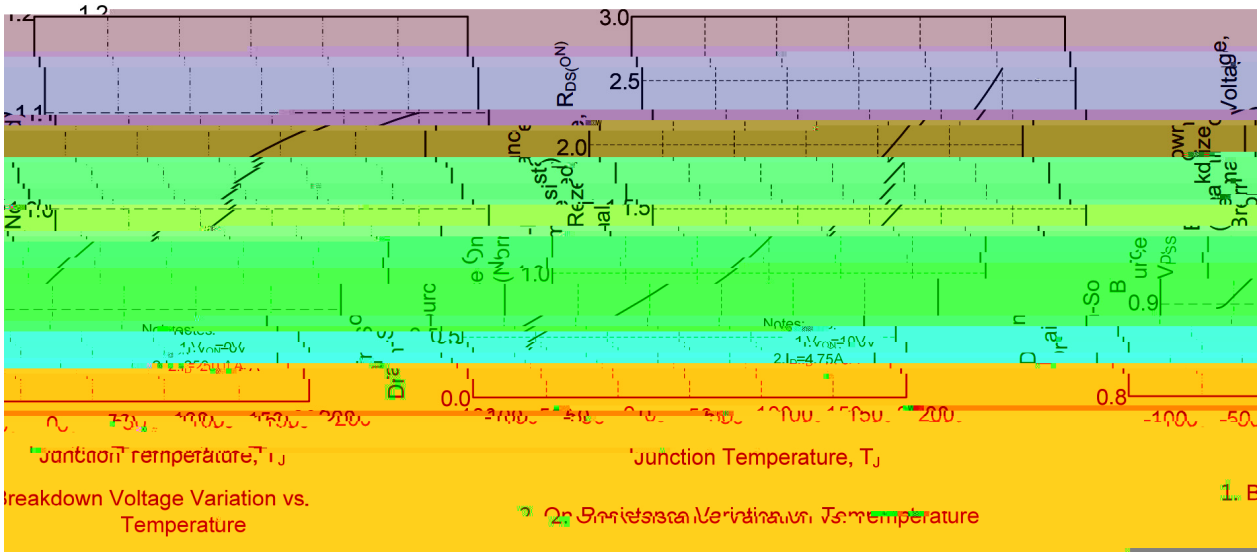
## / Absolute Maximum Ratings(Ta=25 )

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	$V_{DSS}$	650	V
Drain Current	$I_D(T_C=25)$	10	A
Drain Current	$I_D(T_C=100)$	5.7	A
Drain Current - Pulsed	$I_{DM}$	38	A
Gate-Source Voltage	$V_{GSS}$	$\pm 30$	V
Single Pulsed Avalanche Energy	$E_{AS}$	488.9	mJ
Avalanche Current	$I_{AR}$	9.5	A
Thermal Resistance, Junction to Case	$R_{JC}$	2.5	/W
Thermal Resistance, Junction to Ambient	$R_{JA}$	65	/W
Power Dissipation	$P_D(T_C=25)$	50	W
Operating and Storage Temperature Range	$T_J, T_{STG}$	-55 to 150	

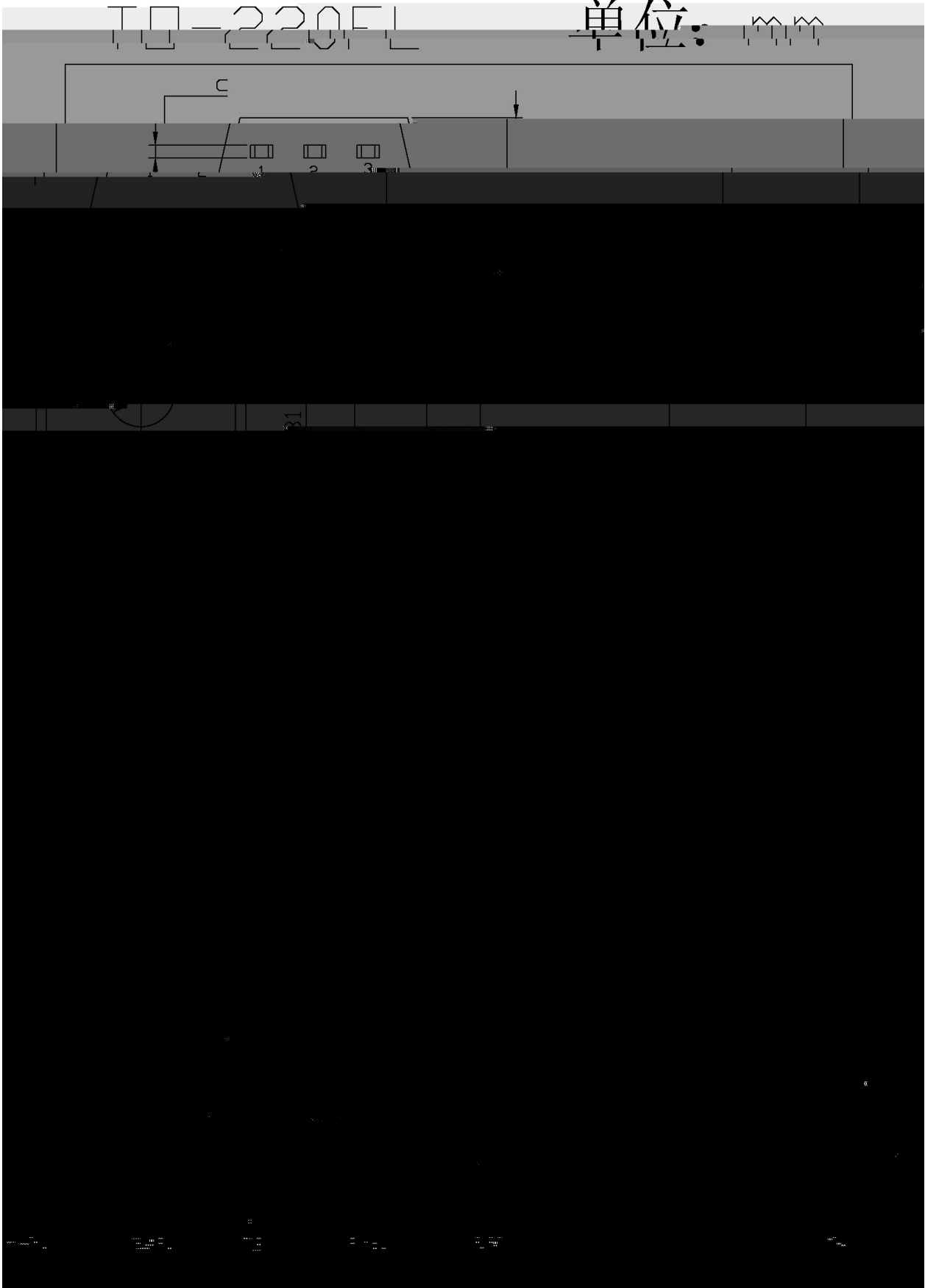
## / Electrical Characteristics(Ta=25 )

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	$BV_{DSS}$	$V_{GS}=0V$ $I_D=250\mu A$	650			V
Zero Gate Voltage Drain Current	$I_{DSS}$	$V_{DS}=600V$ $V_{GS}=0V$			1.0	$\mu A$
		$V_{DS}=480V$ $T_C=125$			10	$\mu A$
Gate-Body Leakage Current Forward	$I_{GSS}$	$V_{GS}=\pm 30V$ $V_{DS}=0V$			$\pm 10$	$\mu A$
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS}=V_{GS}$ $I_D=250\mu A$	2.0		4.0	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	$V_{GS}=10V$ $I_D=4.75A$		0.8	0.95	
Continuous Source Current	$I_S$				10	A
Maximum Pulsed Current	$I_{SM}$				38	A
Drain-Source Diode Forward Voltage	$V_{SD}$	$V_{GS}=0V$ $I_S=9.5A$			1.4	V
Reverse Recovery Time	$t_{rr}$	$V_{GS}=0V$ $I_S=10A$ $di/dt = 100 A/\mu s$		333		ej
Reverse Recovery Charge	$Q_{rr}$			3.9		:
Input Capacitance	$C_{iss}$	$V_{DS}=25V$ $V_{GS}=0V$ $f=1.0MHz$		1570		pF
Output Capacitance	$C_{oss}$			166		pF
Reverse Transfer Capacitance	$C_{rss}$			18		pF
Turn-On Delay Time	$t_{d(on)}$	$V_{DD}=300V$ $I_D=9.5A$ $R_G=25$		23		ns
Turn-On Rise Time	$t_r$			69		ns
Turn-Off Delay Time	$t_{d(off)}$			144		ns
Turn-Off Fall Time	$t_f$			77		ns

**/ Electrical Characteristic Curve**



/ Package Dimensions



**/ Marking Instructions**



BR

10N65

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Note:

BR: Company Code

10N65: Product Type Code

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

( ) / Temperature Profile for Dip Soldering(Pb-Free)


- |   |        |            |   |
|---|--------|------------|---|
| 1 | 25 150 | 60 90sec;  | Note:<br>1.Preheating:25~150 , Time:60~90sec. |
| 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.                  |

/ Resistance to Soldering Heat Test Conditions

270..5                      10..1 sec.                      Temp.:270±5                      Time:10±1 sec

/ Packaging SPEC.

/ TUBE

Package Type	Units	Dimension	(unit mm <sup>3</sup> )
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