

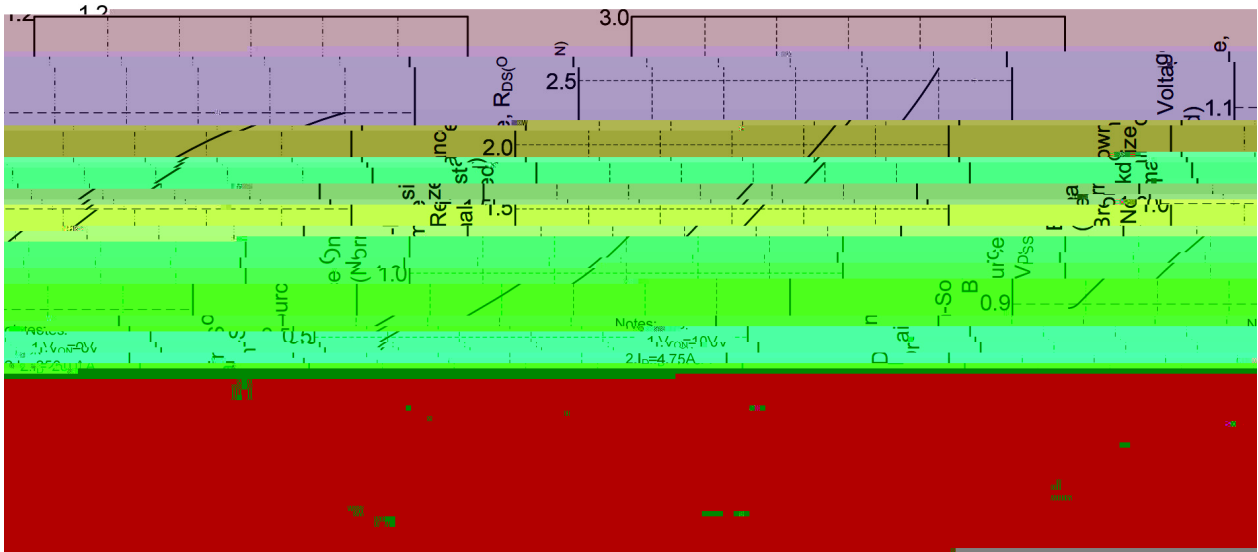
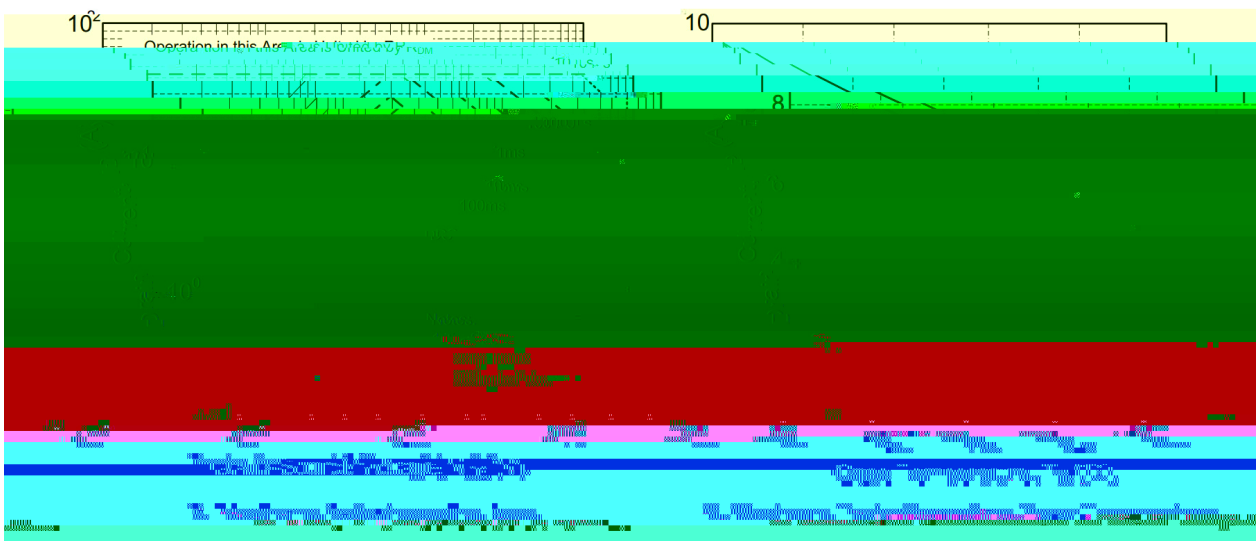
/ Absolute Maximum Ratings(Ta=25)

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

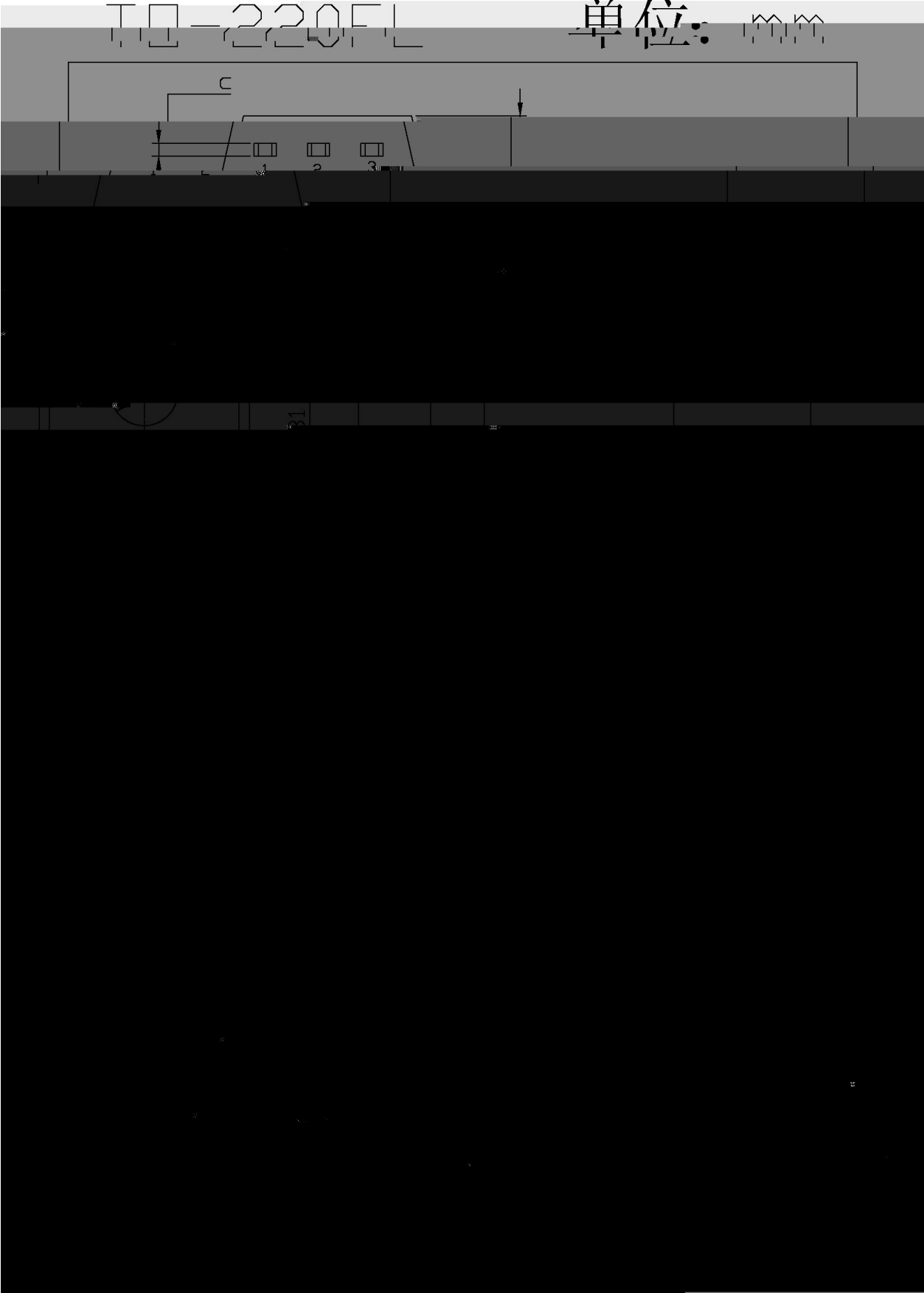
/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	BV_{DS}	$V_{GS}=0V$ $I_D=250\mu A$	650			V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS}=600V$ $V_{GS}=0V$			1.0	μA
		$V_{DS}=480V$ $T_C=125^\circ\text{C}$			10	μA
Gate-Body Leakage Current Forward	I_{GSS}	$V_{GS}=\pm 30V$ $V_{DS}=0V$			± 10	μA
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	Ω
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		qv
Reverse Recovery Charge	Q_{rr}			3.9		PF
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	$t_{d(on)}$	$V_{DD}=300V$ $I_D=9.5A$ $R_G=25\Omega$		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

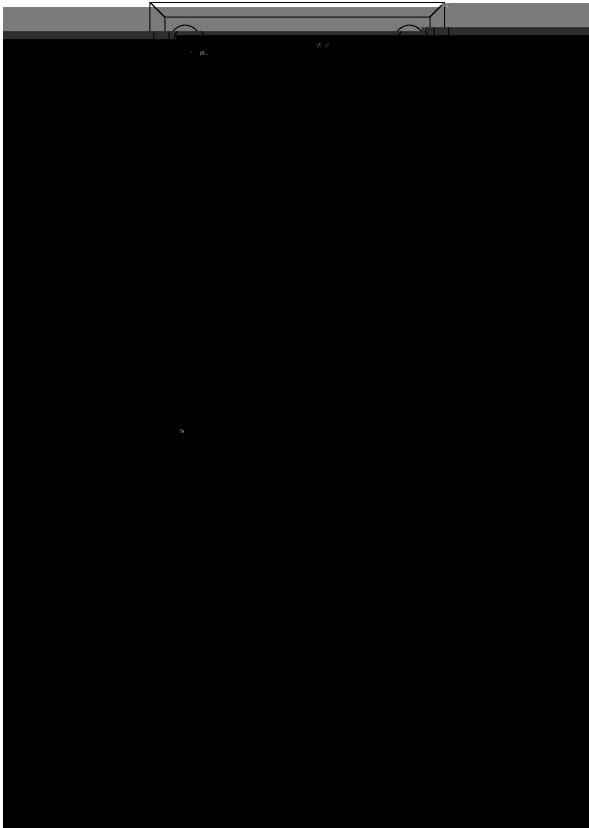
/ Electrical Characteristic Curve



/ Package Dimensions



/ Marking Instructions



BR	
10N65	

Note:	
BR:	Company Code
10N65:	Product Type Code
****:	Lot No. Code, code change with Lot No.


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

б " X

1. 150 °C 25 ~ 150 °C 60 ~ 90sec;

2. 255 °C 5 ~ 255 °C 5 ~ 0.5sec;

3. 2 ~ 10 °C /sec.

Note:

1.Preheating:25~150 °C , Time:60~90sec.

2.Peak Temp.:255 °C 5 ~ , Duration:5 ~ 0.5sec.

3. Cooling Speed: 2~10 °C /sec.

/ Resistance to Soldering Heat Test Conditions

270 °C 5 ~ 270 °C 10 ~ 1 sec.

Temp.:270±5

Time:10±1 sec

/ Packaging SPEC.

1 Y E / TUBE

Package Type

Units

Dimension

(unit mm³)