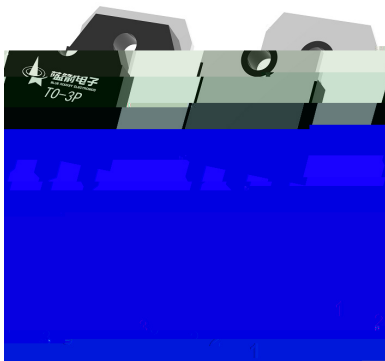
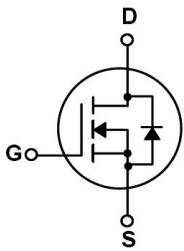


Rev.A Aug.-2023

TO-3P N MOS
N-Channel MOSFET in a TO-3P Plastic Package.

$V_{DS}=500V$ $I_D=24A$
 $R_{DS(ON)}@10V$ 0.25 (Typ. 0.17)
 $R_{DS(ON)}@6V$ 0.3 (Typ. 0.18m)

Designed for high voltage, high speed power switching applications such as high efficiency switched mode power supplies, active power factor correction.



PIN1 G

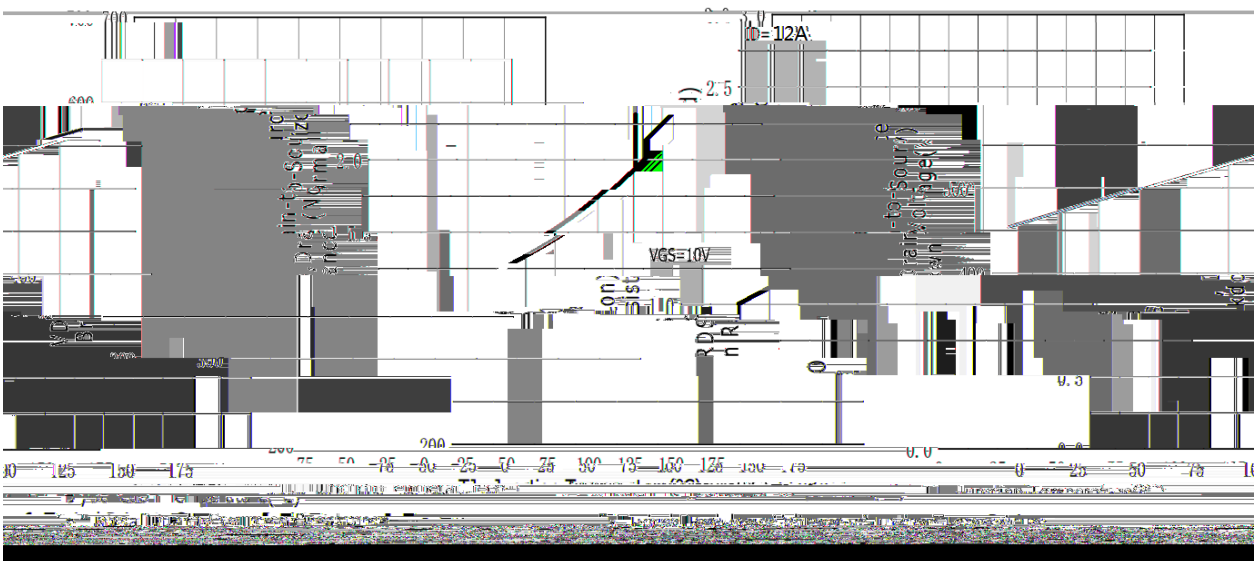
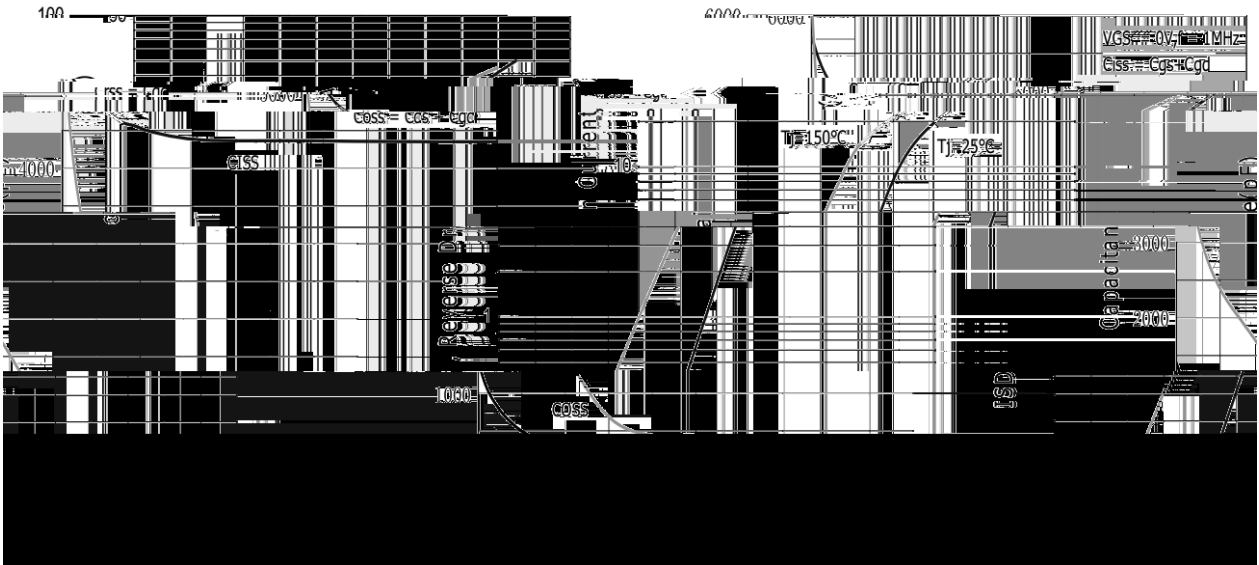
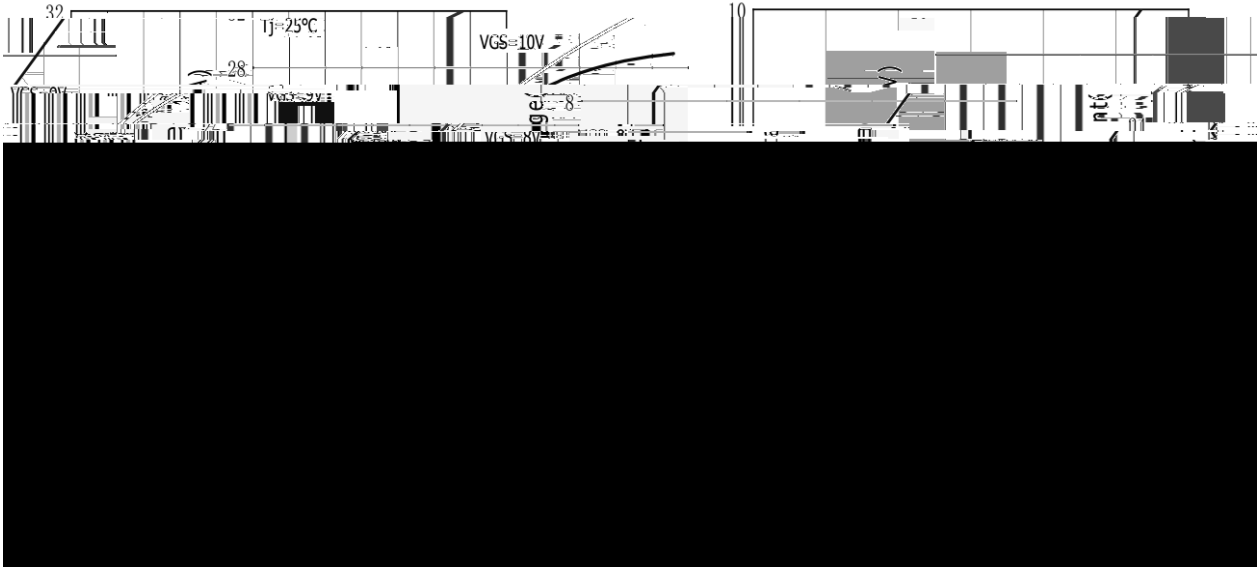
PIN 2 D

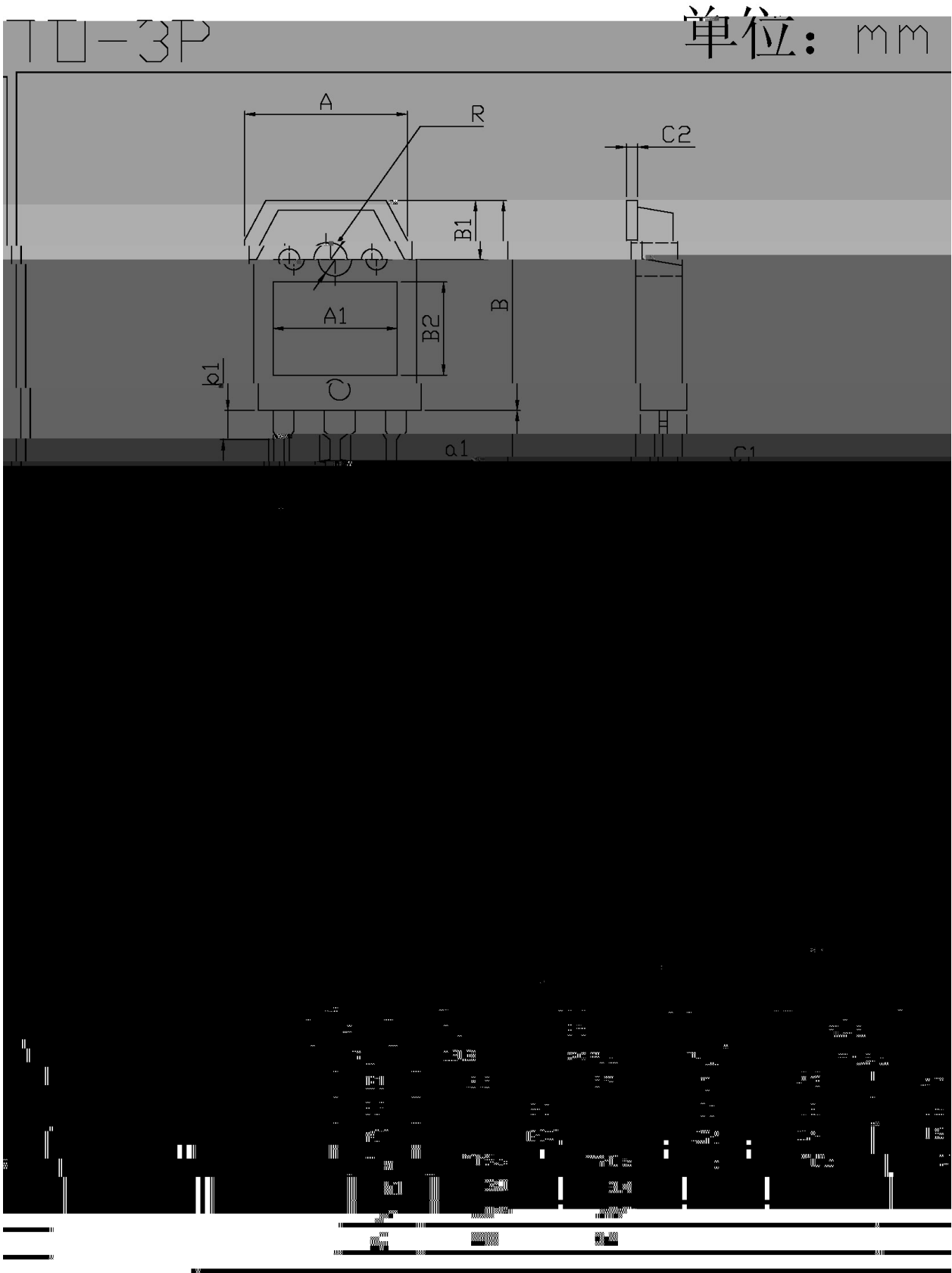
PIN 3 S

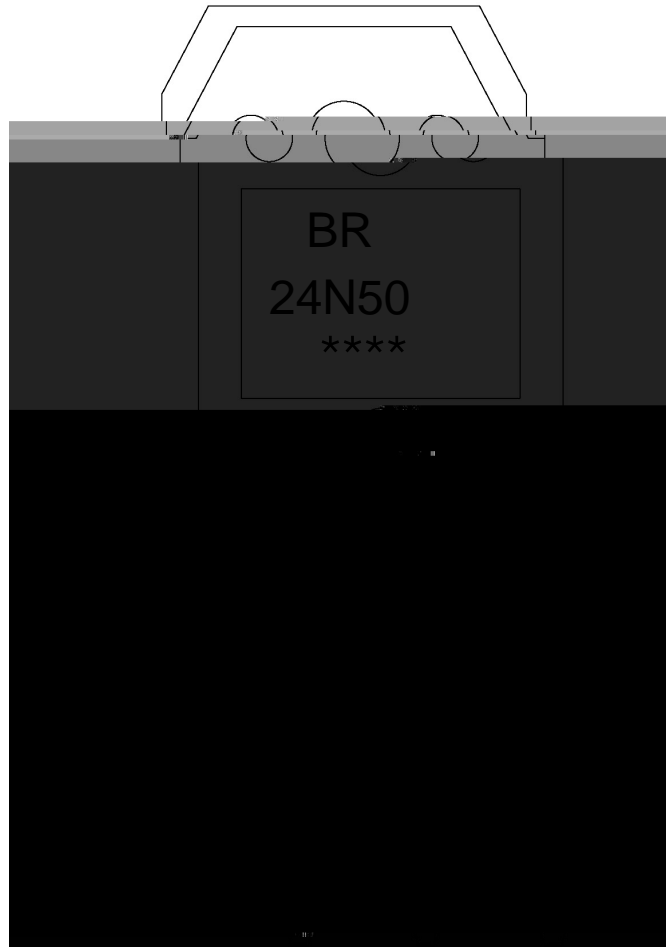
See Marking Instructions.

Parameter	Symbol	Rating	Unit
Drain-to-Source Breakdown Voltage	V_{DSS}	500	V
Continuous Drain Current	$I_D(T_C=25^\circ\text{C})$	24	A
Drain Current Pulsed	I_{DM}	90	A
Gate-to-Source Voltage	V_{GS}	± 30	V
Avalanche Current	I_{AS}	21	A
Single Pulse Avalanche Energy	E_{AS}	1960	mJ
Power Dissipation	$P_D(T_C=25^\circ\text{C})$	270	W
Junction Temperature Range	T_j	150	
Storage Temperature Range	T_{stg}	-55 150	
Thermal Resistance Junction-Case	R_{JC}	0.46	/W

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-to-Source Breakdown Voltage	V_{DSS}	$V_{GS}=0V$ $I_D=250\mu A$	500	550		V
Drain-to-Source Leakage Current	I_{DSS}	$V_{DS}=500V$ $V_{GS}=0V$			1.0	μA
Gate-to-Source Forward Leakage	I_{GSS}	$V_{GS}=\pm 30V$ $V_{DS}=0V$			± 100	nA
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS}=V_{GS}$ $I_D=250\mu A$	2.0		4.0	V
Static Drain-to-Source On-Resistance	$R_{DS(on)}$	$V_{GS}=10V$ $I_D=12A$		0.17	0.25	
Static Drain-to-Source On-Resistance	$R_{DS(on)}$	$V_{GS}=6V$ $I_D=6A$		0.18	0.3	
Diode Forward Voltage	V_{SD}	$V_{GS}=0V$ $I_{SD}=24A$			1.4	V
Input Capacitance	C_{iss}	$V_{DS}=25V$ $V_{GS}=0V$ $f=1.0MHz$		4364		pF
Output Capacitance	C_{oss}			311		
Reverse Transfer Capacitance	C_{rss}			138		
Turn-On Delay Time	$t_{d(on)}$	$V_{DD}=250V$ $I_D=24A$ $R_G=10$		28.8		ns
Rise Time	t_r			5.6		
Turn-Off Delay Time	$t_{d(off)}$			106.4		
Fall Time	t_f			9.6		
Total Gate Charge	Q_g	$V_{DS}=400V$ $I_D=24A$ $V_{GS}=10V$		214		nC
Gate-Source Charge	Q_{gs}			104		
Gate-Drain Charge	Q_{gd}					







BR:

24N50

Note:

BR:

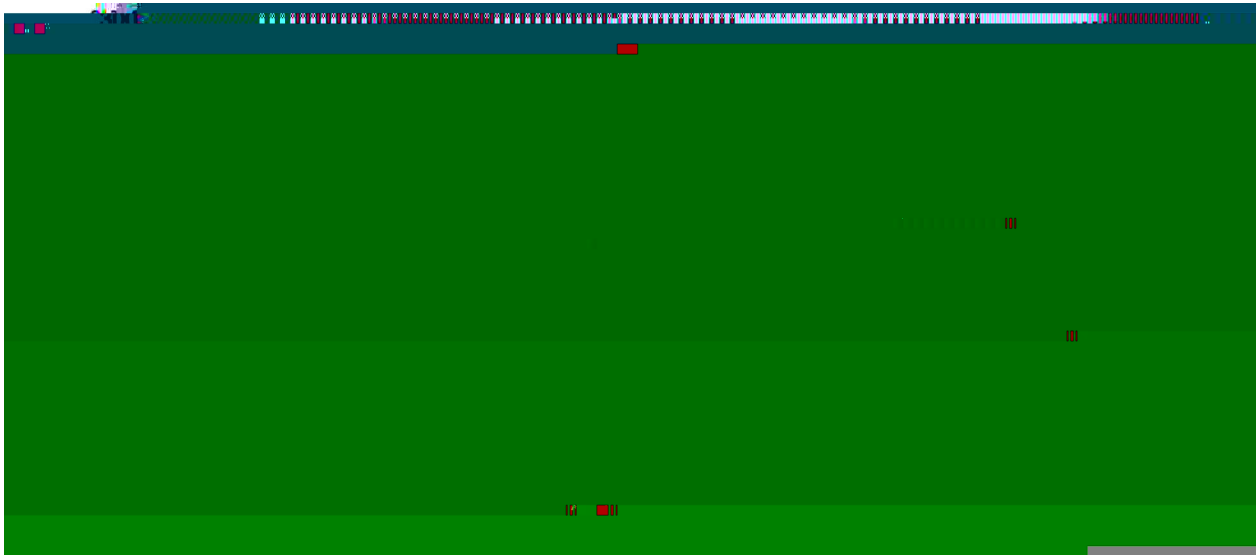
Company Code

24N50:

Product Type

****:

Lot No. Code, code change with Lot No



- | | | | | | | |
|---|-------|-----|-----------|--------|---|--------------------------------------|
| 1 | 25 | 150 | 60 | 90sec; | Note: | 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. | |

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

/ TUBE

Package Type	Units					Dimension (unit mm ³)		
	Units/Tube /	Tubes/Inner Box /	Units/Inner Box /	Inner Boxes/Outer Box /	Units/Outer Box /	Tube	Inner Box	Outer Box