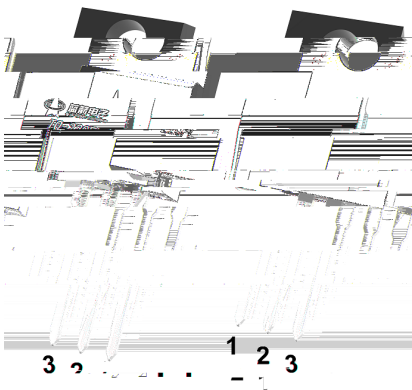
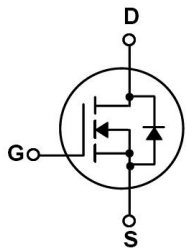


BRFL24N50 is a 50V, 24A, N-Channel MOSFET in a TO-220FL Plastic Package.

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

BRFL24N50 is designed for high voltage, high speed power switching applications such as high efficiency switched mode power supplies, active power factor correction.



PIN 1 y G

PIN 2 y D

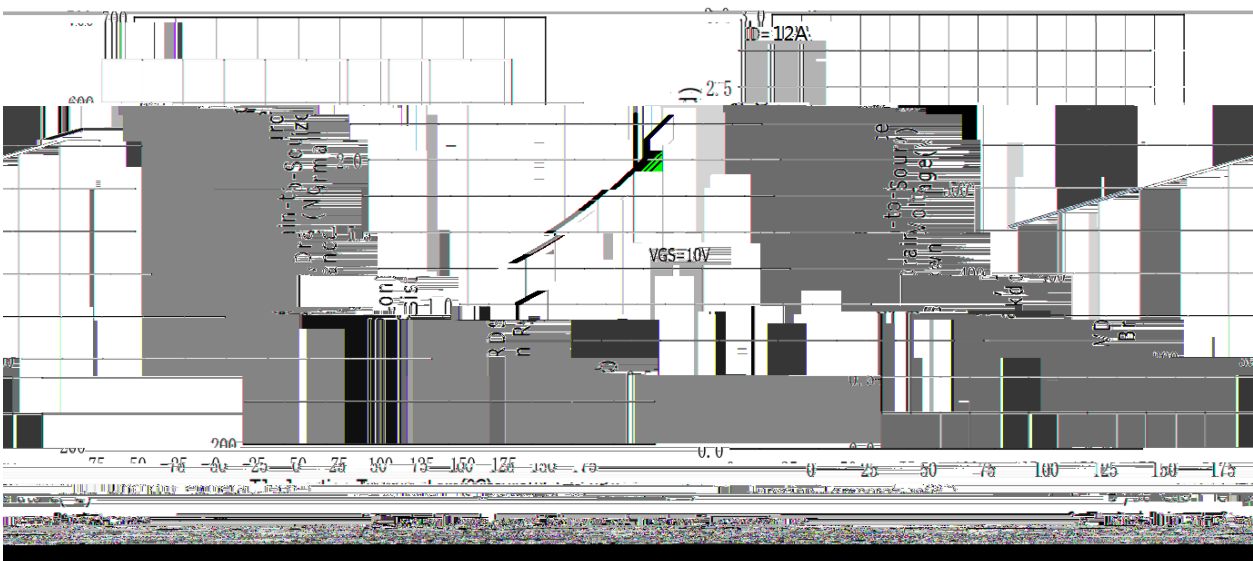
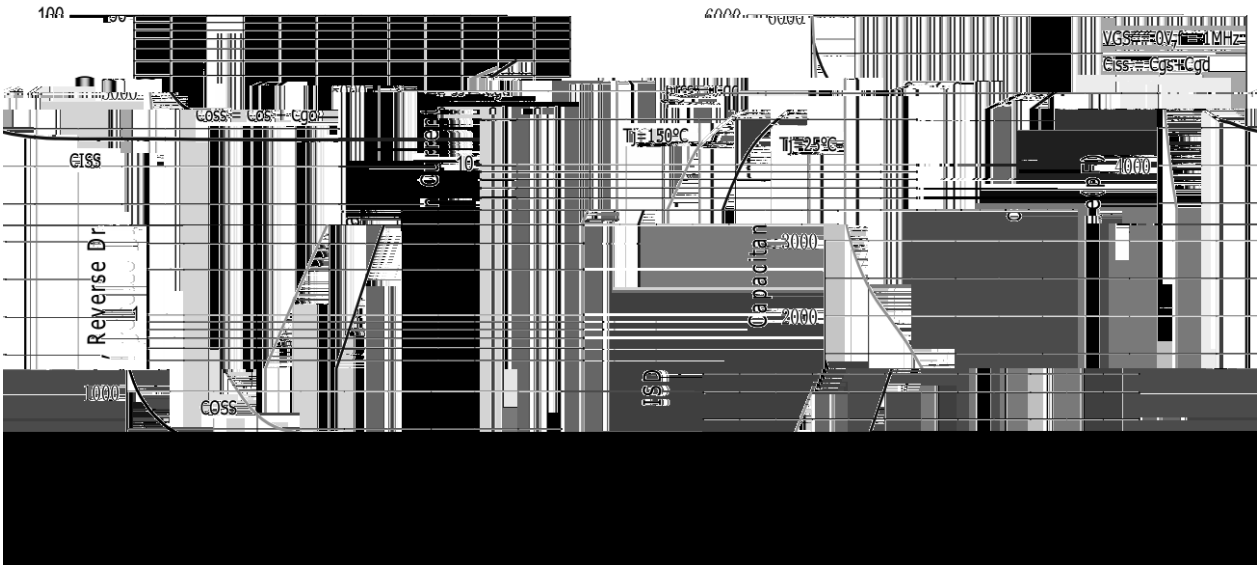
PIN 3 y S

Marking

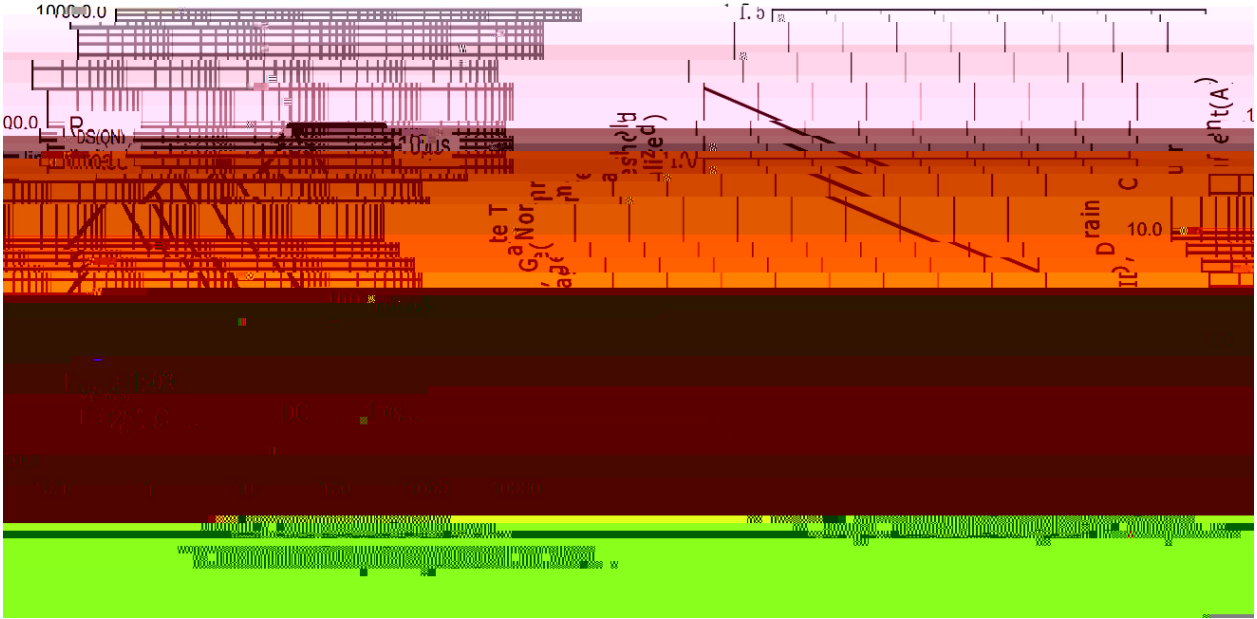
@ f Parameter	... Z Symbol	f › Rating	% y Unit
Drain-to-Source Breakdown Voltage	V_{DSS}	500	V
Continuous Drain Current	$I_D(T_C=25^\circ C)$	24	A
Drain Current Pulsed	I_{DM}	90	A
Gate-to-Source Voltage	V_{GS}	± 30	V
Avalanche Current	I_{AS}	21	A
Single Pulse Avalanche Energy	E_{AS}	1960	mJ
Power Dissipation	$P_D(T_C=25^\circ C)$	50	W
Junction Temperature Range	T_j	150	
Storage Temperature Range	T_{stg}	-55 150	
Thermal Resistance Junction-Case	R_{JC}	2.5	/W

@ f Parameter	... Z Symbol	y i Ú ^ Test Conditions	Â 4 › Min	Á ° › Typ	Â Ý › Max	% y Unit
Drain-to-Source Breakdown Voltage	V_{DSS}	$V_{GS}=0V$ $I_D=250$ A	500	550		V
Drain-to-Source Leakage Current	I_{DSS}	$V_{DS}=500V$ $V_{GS}=0V$			1.0	A
Gate-to-Source Forward Leakage	I_{GSS}	$V_{GS}=\pm 30V$ $V_{DS}=0V$			± 100	nA
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS}=V_{GS}$ $I_D=250$ 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				

Electrical Characteristic Curve

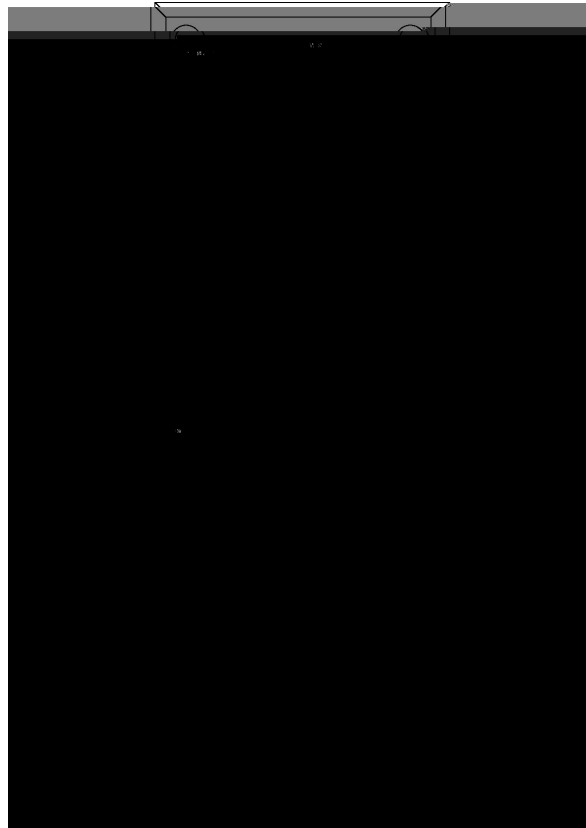


Ô ? d • Ž ç / Electrical Characteristic Curve

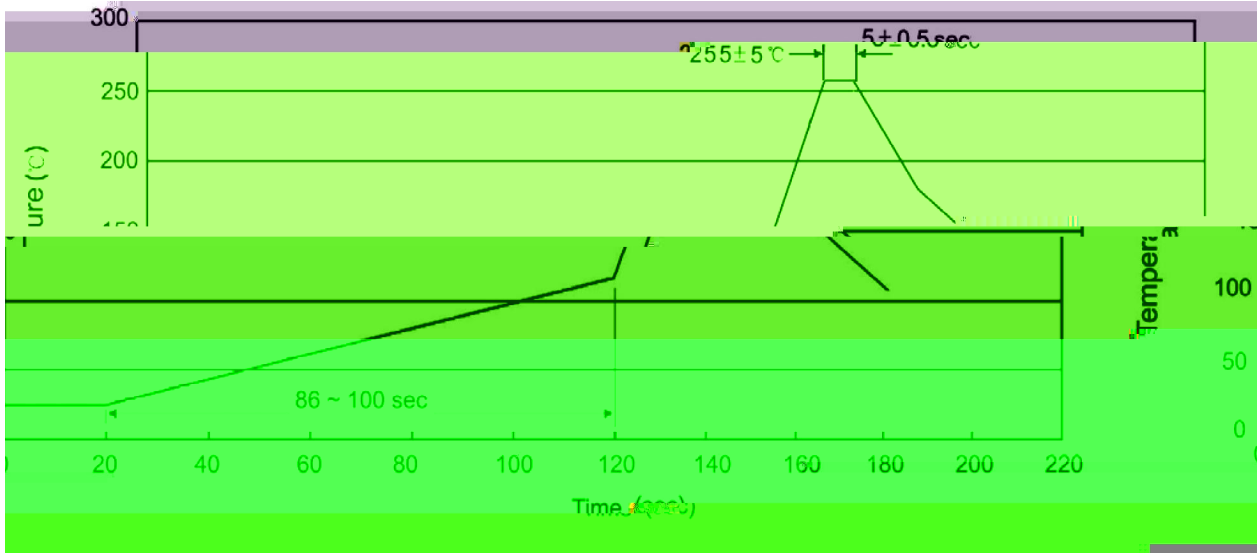


∅ □ =) ∅ / Package Dimensions





G PD t ... • Ž Ć (x /) / Temperature Profile for Dip Soldering(Pb-Free)



° Ć y

1• Ā ½ “ † 25 ½150 - k ž • 60 ½90sec;

2• Q › “ † 255 r5 - k ž • 4 Ò 5 r0.5sec;

3•D N ò i Ò 0 , † 2 ½10 - /sec.

Note:

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

2.Peak Temp.:255 r5 - , Duration:5 r0.5sec.

3. Cooling Speed: 2~10 - /sec.

ĀD /Cā p - »] / Resistance to Soldering Heat Test Conditions

“ † y 270 r5 -

ž • y 10 r1 sec.

Temp.:270±5

Time:10±1 sec

G P á / Packaging SPEC.

ì ' x / TUBE

Package Type 7>û ~ E	Units ;>û !H					Dimension ;>û p . (unit ÅĤm³)		
	Units/Tube /•1x	Tubes/Inner Box •1x/-	Units/Inner Box /-	Inner Boxes/Outer Box - /!Ć	Units/Outer Box /!Ć	Tube•1x	Inner Box	Outer BoxĆ
TO-220FL	50	20	1,000	5	5,000	532x33x7.0	555x164x50	575x290x180

„ Đ y f / Notices