ˇYت

TO-220F N MOS

N-CHANNEL MOSFET in a TO-220F Plastic Package.

◕ Ȅ

V_{DS}=200V I_D=18A V_{GS}=±20V

$R_{DS(on)}$@10V 170m)(Type.115m)

$R_{DS(on)}$@6V 200m (Type.130m)

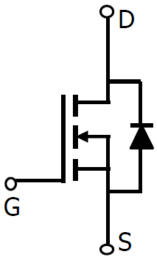
HF Product.

۷ ۮ

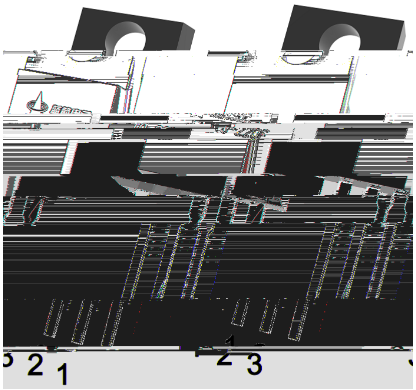
LED

Networking,Load Switch,LED applications.

ɲڨ ᾇ ؞ ع



ẫ ɻ ŭ



PIN1 G PIN 2 D PIN 3 S

ŧ ʜ ǻ

See Marking Instructions.

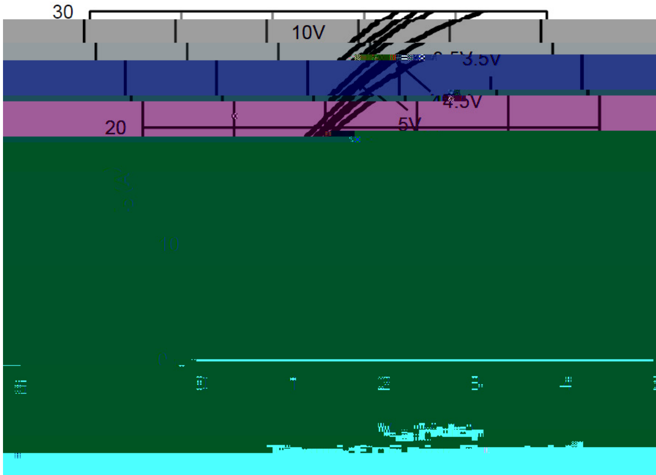
ώ ä ɜ Ą ɹ

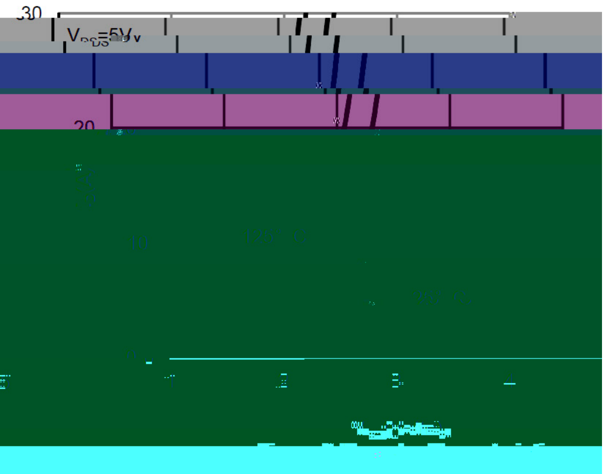
Parameter		Symbol	Rating	Unit
Drain-Source Voltage		V_{DSS}	200	V
Drain Current		I_D(Tc=25)	18	A
Drain Current - Pulsed		I_{DM}	28	A
Gate-Source Voltage		V_{GS}	±20	V
Single Pulsed Avalanche Energy(L=10mH)		E_{AS}	897	mJ
Avalanche Current(L=10mH)		I_{AS}	11.5	A
Power Dissipation		P_D(Tc=25)	50	W
Operating and Storage Temperature Range		T_J,T_{STG}	-55 to 150	
Maximum Junction-to-Ambient	t 10s	R JA	30	/W
Maximum Junction-to-Ambient	Steady-State		62.5	
Maximum Junction-to-Case	Steady-State	R JC	2.5	

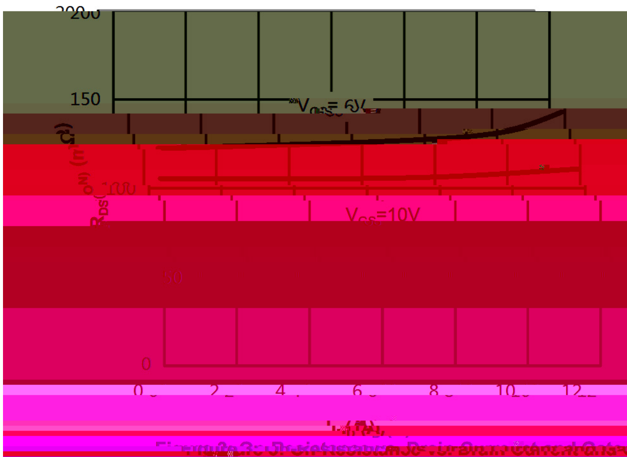
ɂ ʎ ɜ Ą ɹ

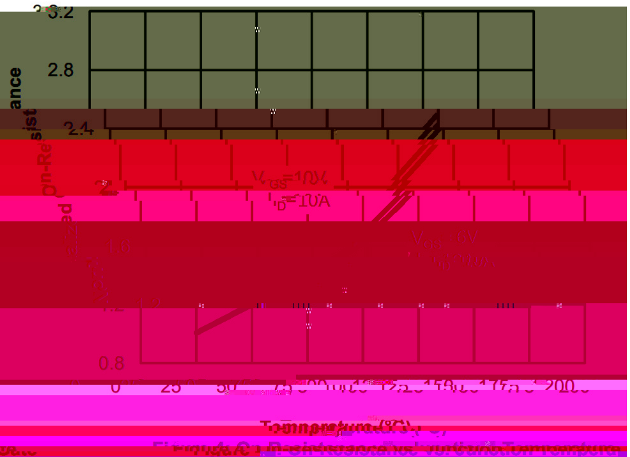
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	BV_{DSS}	V_{GS}=0V I_D=250 A	200	230		V
Zero Gate Voltage Drain Current	I_{DSS}	V_{DS}=200V V_{GS}=0V			1	A
Gate-Body Leakage Current Forward	I_{GSS}	V_{GS}=±20V V_{DS}=0V			±100	nA
Gate Threshold Voltage	$V_{GS(th)}$	V_{DS}=V_{GS} I_D=250 A	2.0	3.0	4.0	V
Total gate charge	$R_{DS(on)}$	V_{GS}=10V I_D=10A		115	170	m
		V_{GS}=6V I_D=10A		130	200	m
Drain-Source Diode Forward Voltage	V_{SD}	V_{GS}=0V I_S=1A			1.2	V
Reverse Recovery Time	t_{rr}	V_{GS}=10V V_{DS}=75V, I_D=18A R_{GEN}=3Ω		125		ns
Reverse Recovery Charge	Q_{rr}			0.67		μC
Gate resistance	R_g	V_{GS}=0V V_{DS}=0V f=1MHz		1.2		
Input Capacitance	C_{iss}	V_{DS}=25V V_{GS}=0V f=1MHz		1130		pF
Output Capacitance	C_{oss}			165		
Reverse Transfer Capacitance	C_{rss}			6		
Total Gate Charge	Q_g	V_{GS}=10V, V_{DS}=100V, I_D=18A		20		nC
Gate Source Charge	Q_{gs}			3.6		
Gate Drain Charge	Q_{gd}			4.9		

Rev.C Apr.-2026









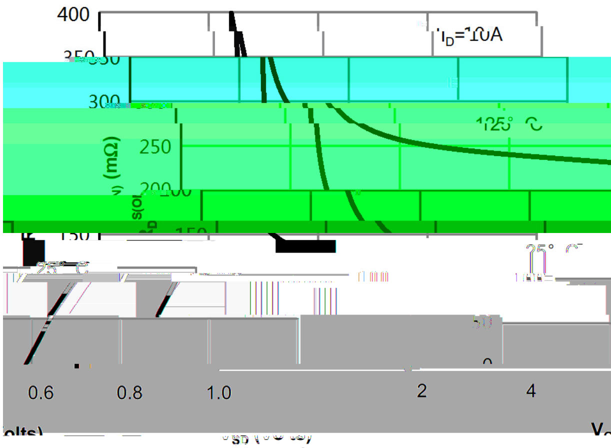


Figure 5: On-Resistance vs Gate-Source Voltage

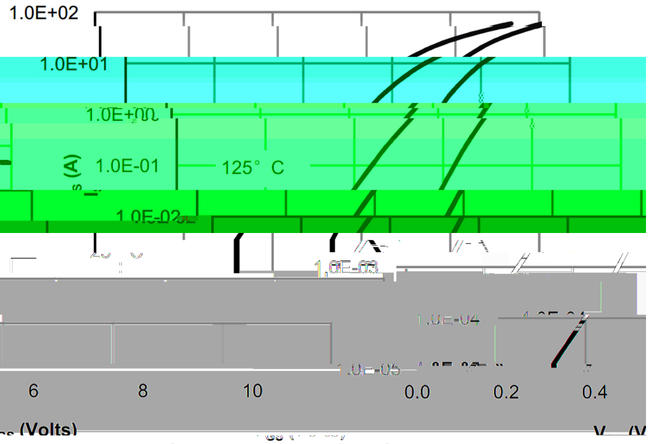
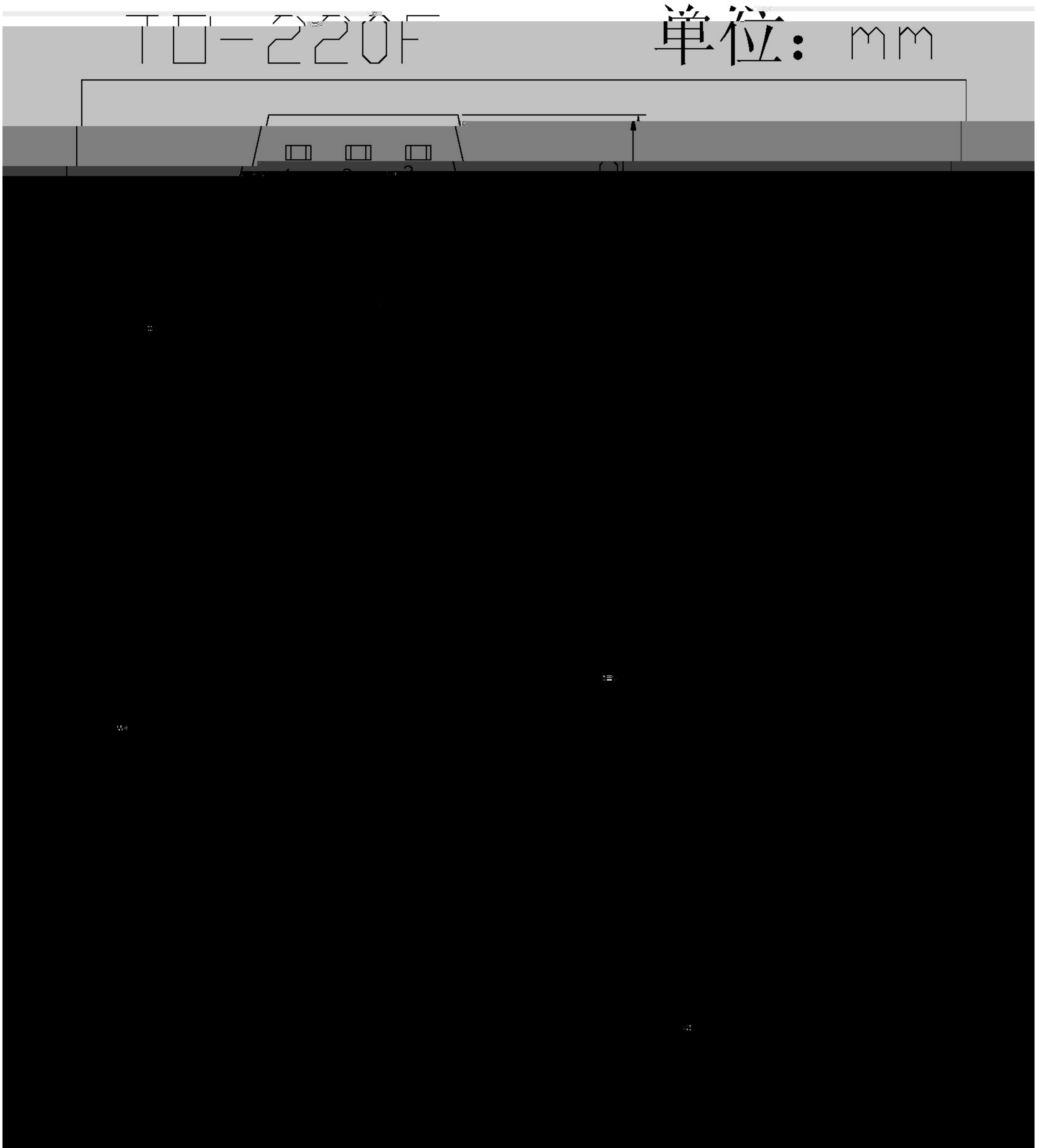


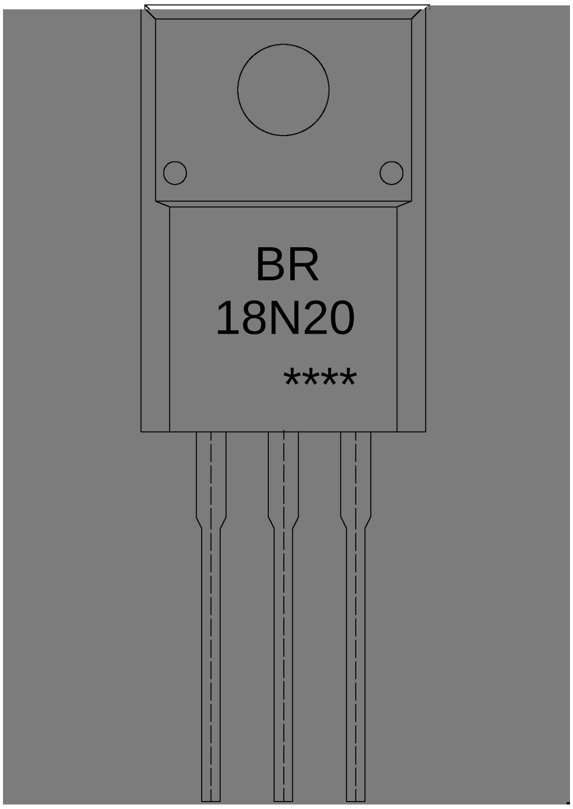
Figure 6: Body-Diode Characteristics

ᵘ ẺÒḼ ʄ



[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
A	9.7	10.3	[illegible]	1.55	1.75
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Ł. L˝Ω



BR

18N20

****

Note:

BR:	Company Code
18N20:	Product Type Code
****:	Lot No. Code, code change with Lot No.

↓ ṣ ╗ ẘ΄E Ⅵ ʄ ὣ ᵴ

1 25 150 60 90sec;
2 255±5 5±0.5sec;
3 2 10 /sec.

Note:
1.Preheating:25~150 , Time:60~90sec.
2.Peak Temp.:255±5 , Duration:5±0.5sec.
3. Cooling Speed: 2~10 /sec.