/ Descriptions

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

/ Features

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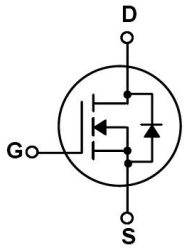
Low thermal resistance, fast switching.

/ Applications

For Electronic transformer, Switch mode power supply.

/ Equivalent Circuit



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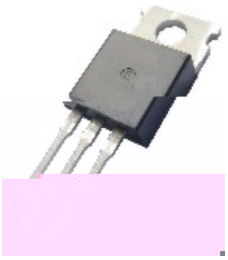


PIN1 G PIN 2 D PIN 3 S

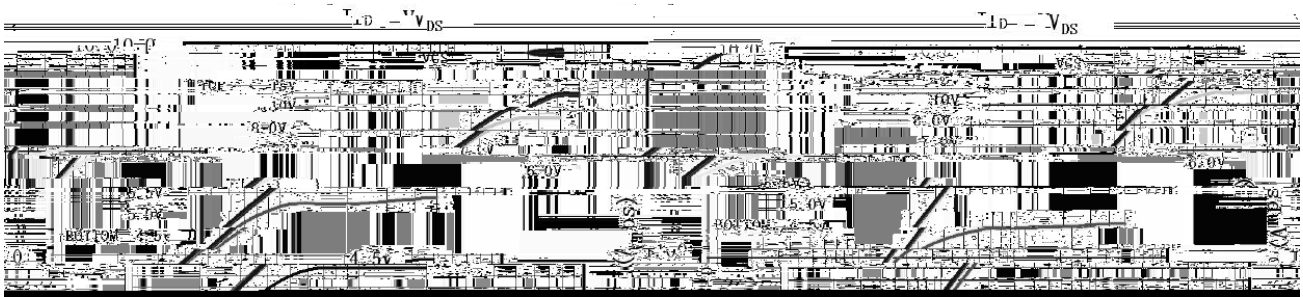
/ h_{FE} Classifications & Marking

See Marking Instructions.

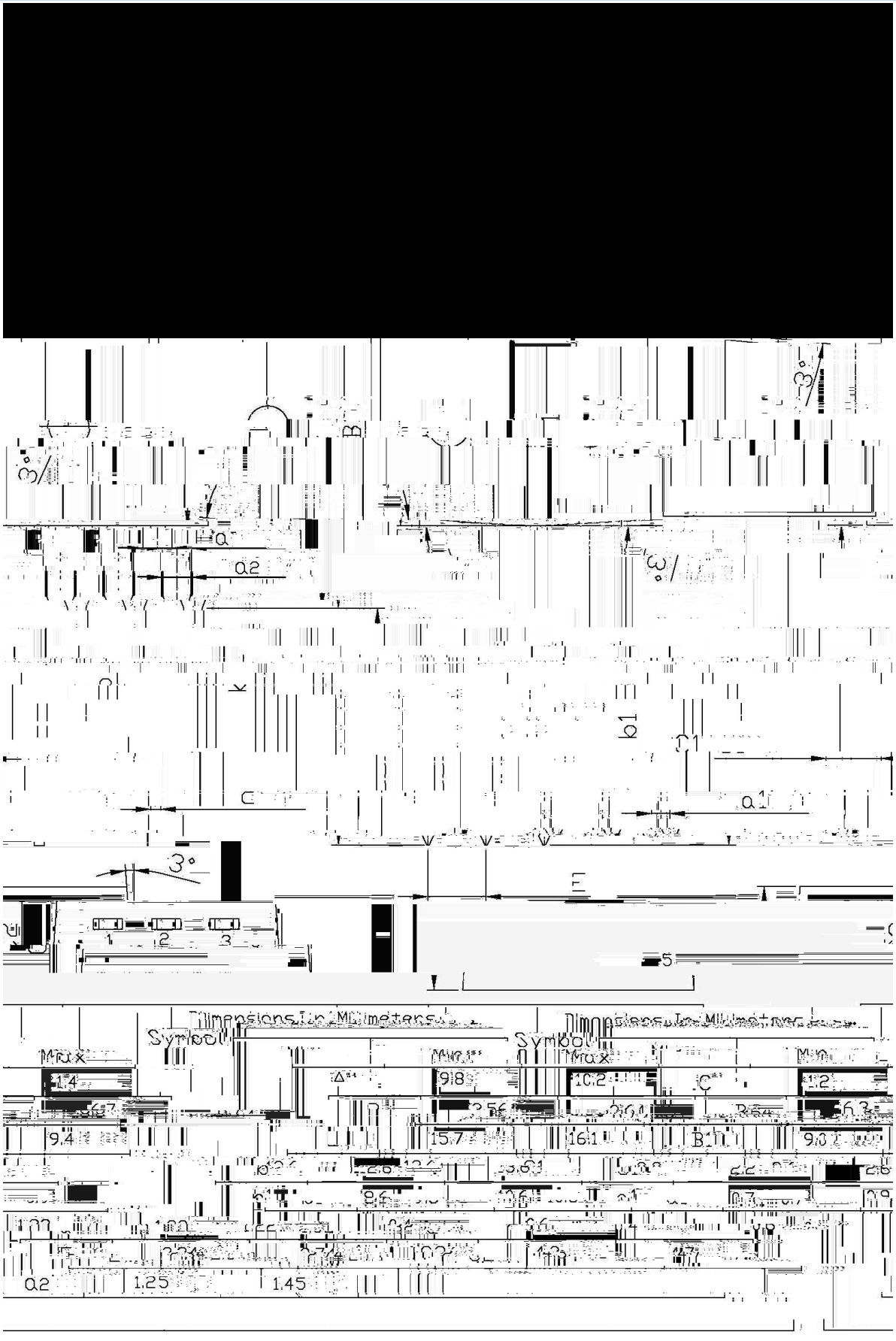
Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	700	V
Gate-Source Voltage	V_{GS}	±30	V
Drain Current	I_D(T_c=25)	4.0	A
Drain Current	I_D(T_c=100)	2.5	A
Drain Current - Pulsed	I_{DM}	16	A
Single Pulsed Avalanche Energy	E_{AS}	260	mJ
Power Dissipation	P_{tot}	106	W
Junction Temperature Range	T_j	150	
Storage Temperature Range	T_{stg}	-55~150	
Thermal Resistance Junction-case	$R_{\theta\text{-}JC}$	1.18	/W
Thermal Resistance Junction-ambient	$R_{\theta\text{-}JA}$	62.5	/W

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	BV_{DSS}	V_{GS}=0V I_D=250μA	700			V
Zero Gate Voltage Drain Current	I_{DSS}	V_{DS}=700V V_{GS}=0V T_j=25			1	μA
		V_{DS}=560V V_{GS}=0V T_j=125			10	μA
Gate-Body Leakage Current, Forward	I_{GSS}	V_{GS}=±30V			±100	nA
Continuous Diode Forward Current	I_S				4.0	A
Drain-Source Diode Forward Voltage	V_{SD}	I_s=4.0A V_{GS}=0V T_j=25			1.4	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	V_{GS}=10V I_D=2.0A			2.8	Ω
Gate Threshold Voltage	$V_{GS(TH)}$	V_{GS}=VDS I_D=250μA	2.0		4.0	V
Reverse Recovery Time	t_{rr}	I_f=4.0A T_j=25 di/dt=100A/μs		250		nS
Reverse Recovery Charge	Q_{rr}			1.5		uC
Input Capacitance	C_{iss}	V_{GS} =0V V_{DS}=25V V_F=1.0MHZ		520		pF
Turn-Off Delay Time	$t_{d(off)}$	V_{DD}=350V I_D=4.0A R_G=25Ω		25		ns

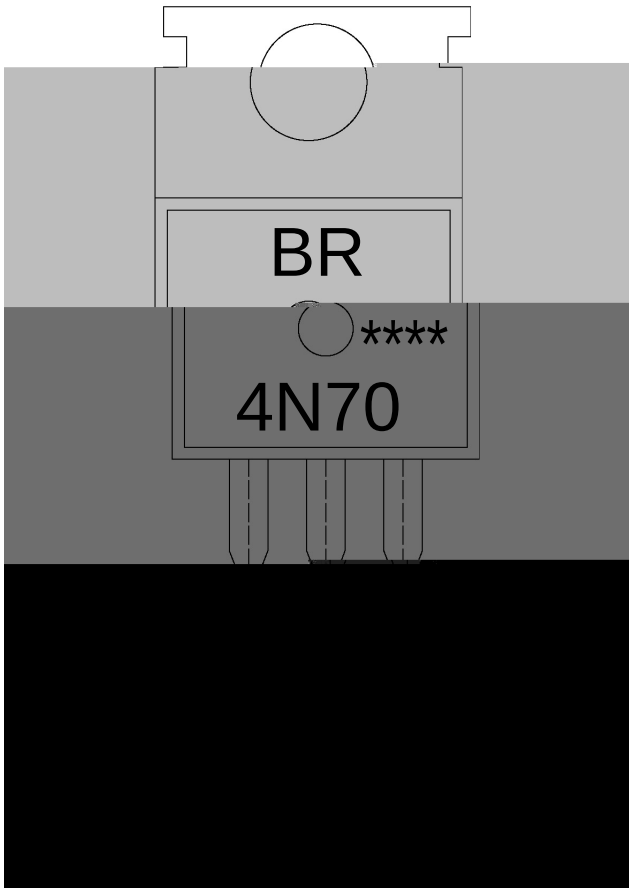
/ Electrical Characteristic Curve



/ Package Dimensions



/ Marking Instructions



BR	И	
7N73	N	
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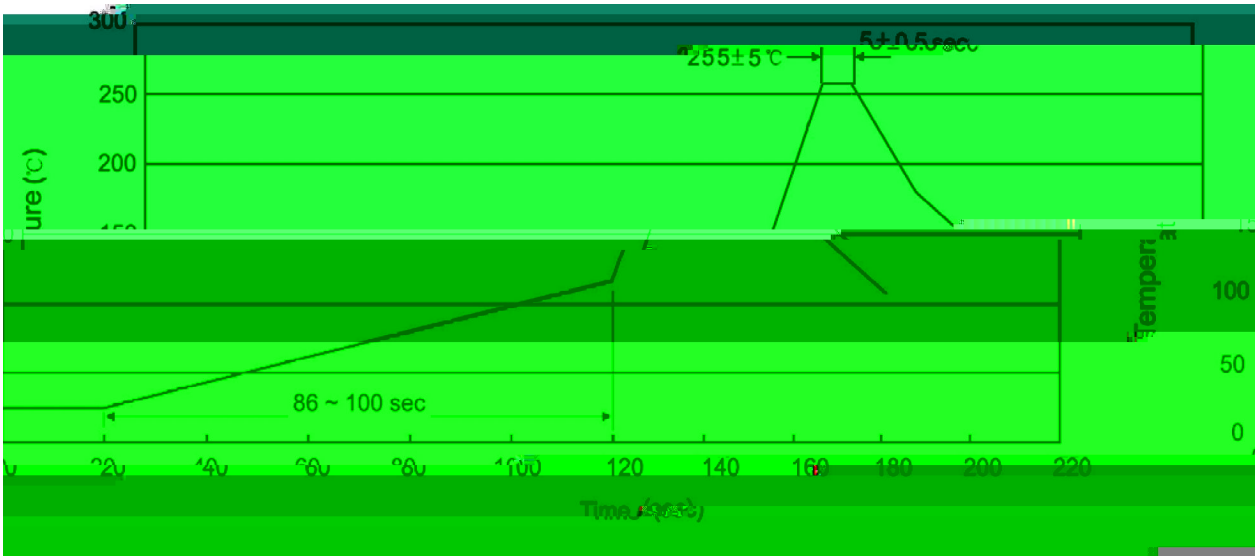
Note:

BR:	Company Code
7N73:	Product Type.
****:	Lot No. Code, code change with Lot No.

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



				Note:	
1	25	150	60 90sec;	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.

/ BULK

Package Type	Units					Dimension		(unit mm³)
	Units/Bag /	Bags/Inner Box /	Units/Inner Box /	Inner Boxes/Outer Box /	Units/Outer Box /	Bag	Inner Box	Outer Box
TO-220/F	200	10	2,000	5	10,000	135×190	237×172×102	560×245×195

/ TUBE

Package Type	Units				Dimension	(unit mm³)
	Units/Tube /	Tubes/Inner Box /	Units/Inner Box /	Inner Boxes/Outer Box /		