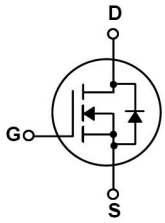
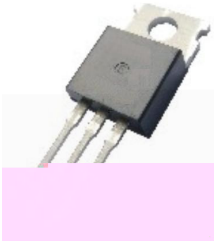
TO-220 N MOS N-CHANNEL MOSFET in a TO-220 Plastic Package.

, ,
Low gate charge, low crss, fast switching.

DC/DC
These devices are well suited for high efficiency switching DC/DC converters and switch mode power supplies.





PIN1 G PIN 2 D PIN 3 S

/ h_{FE}

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DSS}	400	V
Drain Current	I_D(Tc=25)	10	A
	I_D(Tc=100)	6.3	A
Pulsed Drain Current	I_{DM}	40	A
Gate-Source Voltage	V_{GSS}	±30	V
Avalanche Current	I_{AR}	10	A
Single Pulsed Avalanche Energy	E_{AS}	450	mJ
Repetitive Avalanche Energy	E_{AR}	13.4	mJ
Total Power Dissipation	P_D(Tc=25)	134	W
Junction and Storage Temperature Range	T_J,T_{STG}	-55 to 150	

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Zero Gate Voltage Drain Current	BV_{DSS}	V_{GS}=0V I_D=250μA	400			V
Zero Gate Voltage Drain Current	I_{DSS}	V_{DS}=400V V_{GS}=0V			10	μA
		V_{DS}=320V T_C=125			100	μA
Gate-Body Leakage Current Forward	I_{GSS}	V_{GS}=±30V V_{DS}=0V			±0.1	μA
Gate Threshold Voltage	$V_{GS(th)}$	V_{DS}=V_{GS} I_D=250μA	2.0		4.0	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	V_{GS}=10V I_D=5.0A		0.44	0.55	Ω
Forward Transconductance	g_{FS}	V_{DS}=40V I_D=5.0A		9.0		S
Forward On Voltage	V_{SD}	V_{GS}=0V I_S=10A			1.5	V
Input Capacitance	C_{iss}	V_{DS}=25V V_{GS}=0V f=1.0MHz		1570	2040	pF
Output Capacitance	C_{oss}			150	195	
Reverse Transfer Capacitance	C_{rss}			15	20	

/ Electrical Characteristic Curve

I_D – V_{DS}



[V]

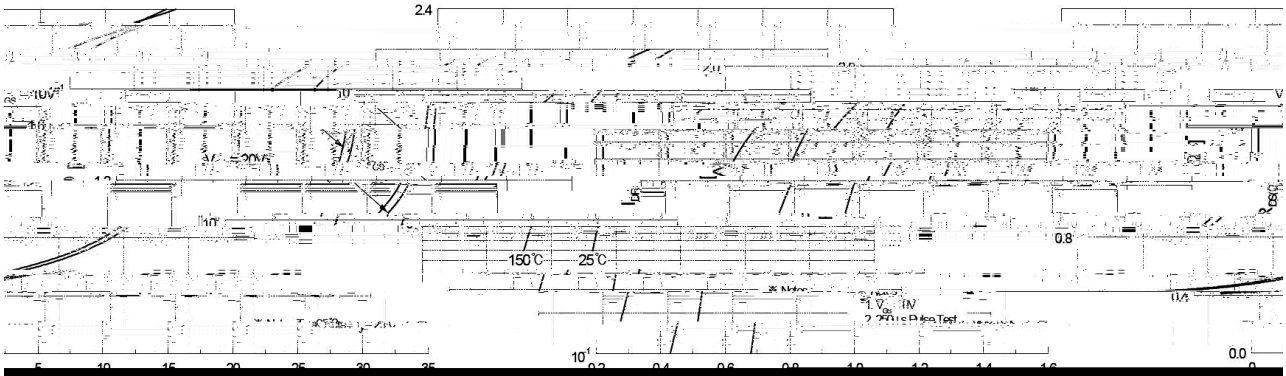
I_D – V_{GS}

V_{DS} [V]

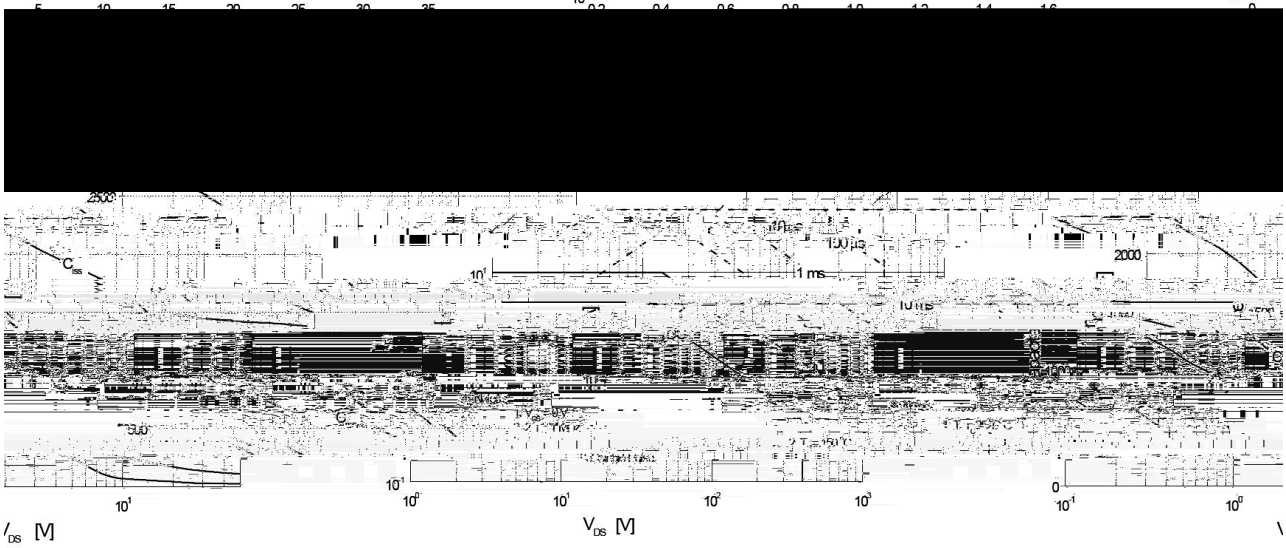
V_{GS}

– V_{SD}

$R_{DS(ON)}$ – I_D



I_{DR}

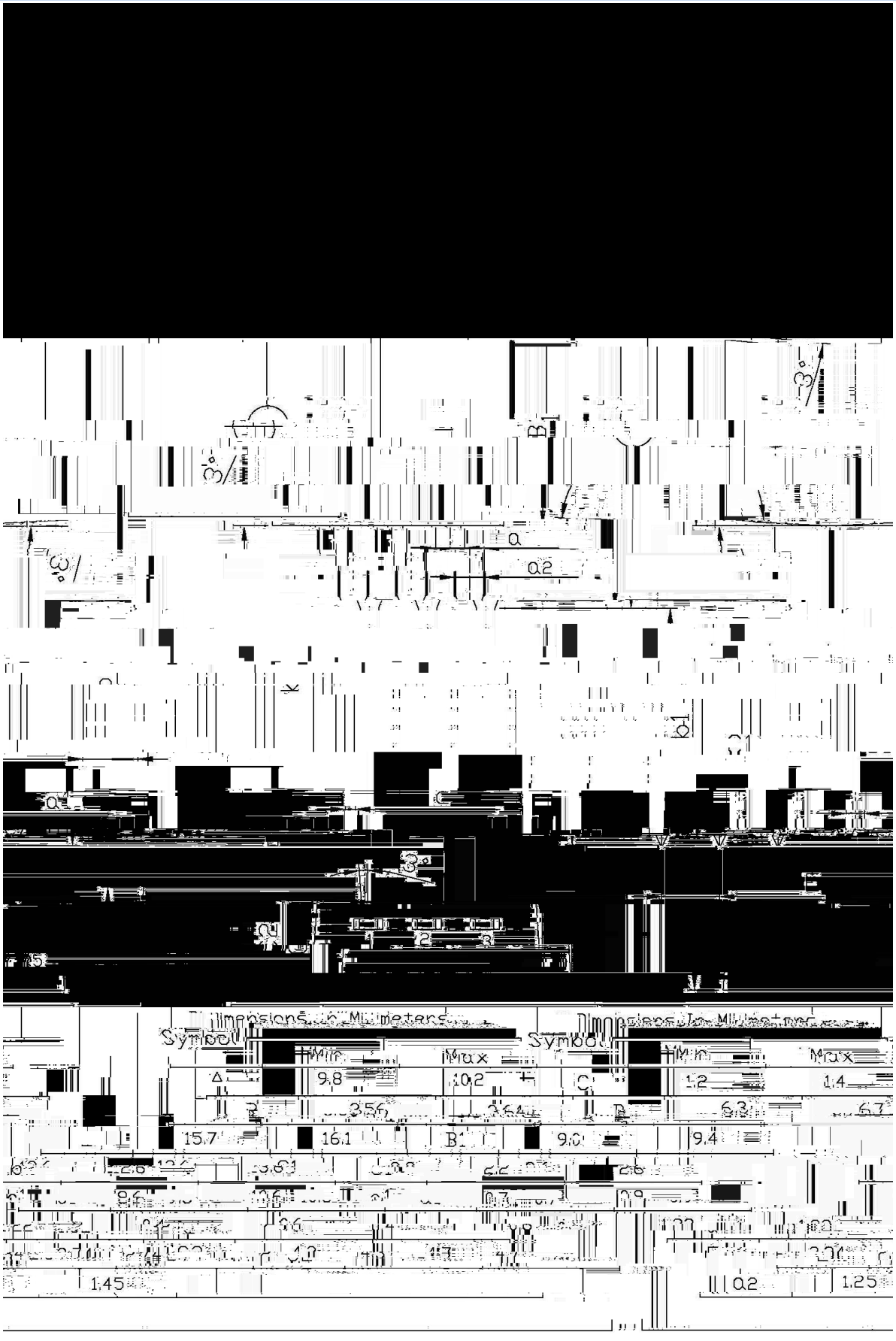


V_{DS} [V]

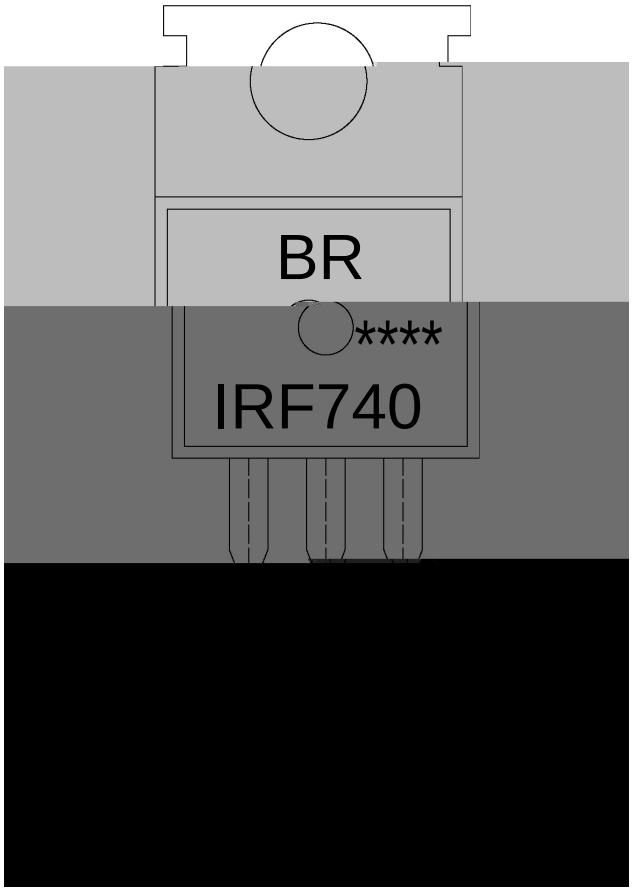
V_{DS} [V]

\

/ Package Dimensions



/ Marking Instructions



BR

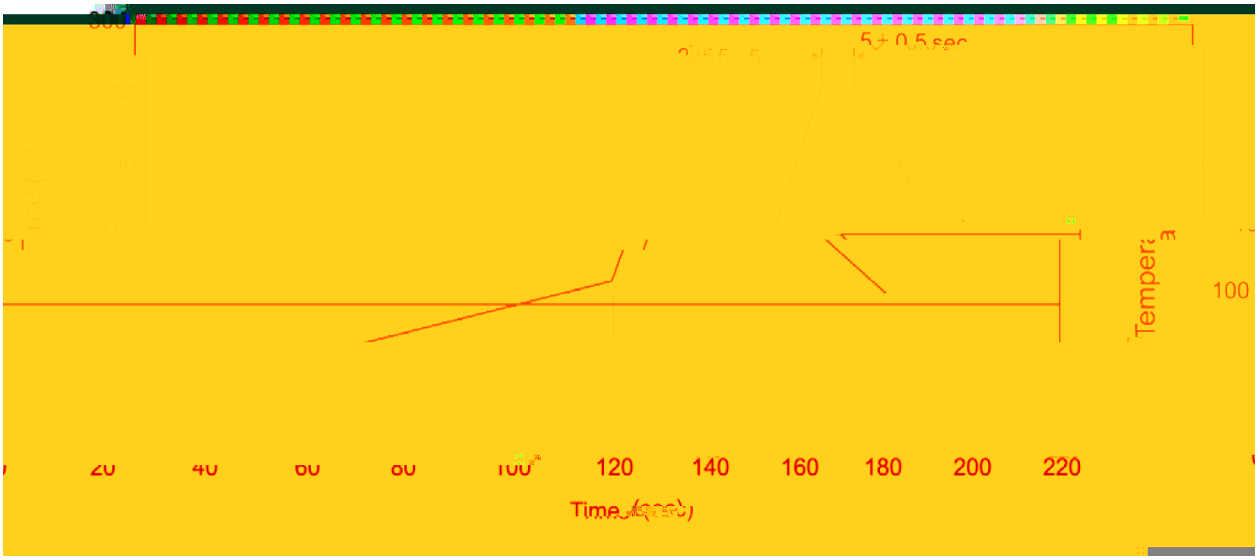
IRF740

****

Note:

BR:	Company Code
IRF740:	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 mm^3)
	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 mm^3)
	Units/Tube /	Tubes/Inner Box /	Units/Inner Box /	Inner Boxes/Outer Box /		

2,007.514 217.4 6 7.44 re W n BT 6.48 0 0 6.48 247.74 218.9003 Tm 0 Tc 0 Tw ( )Tj ET Q B /TT13 1 Tf (