

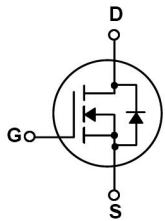
Rev.H Jul.-2018

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.



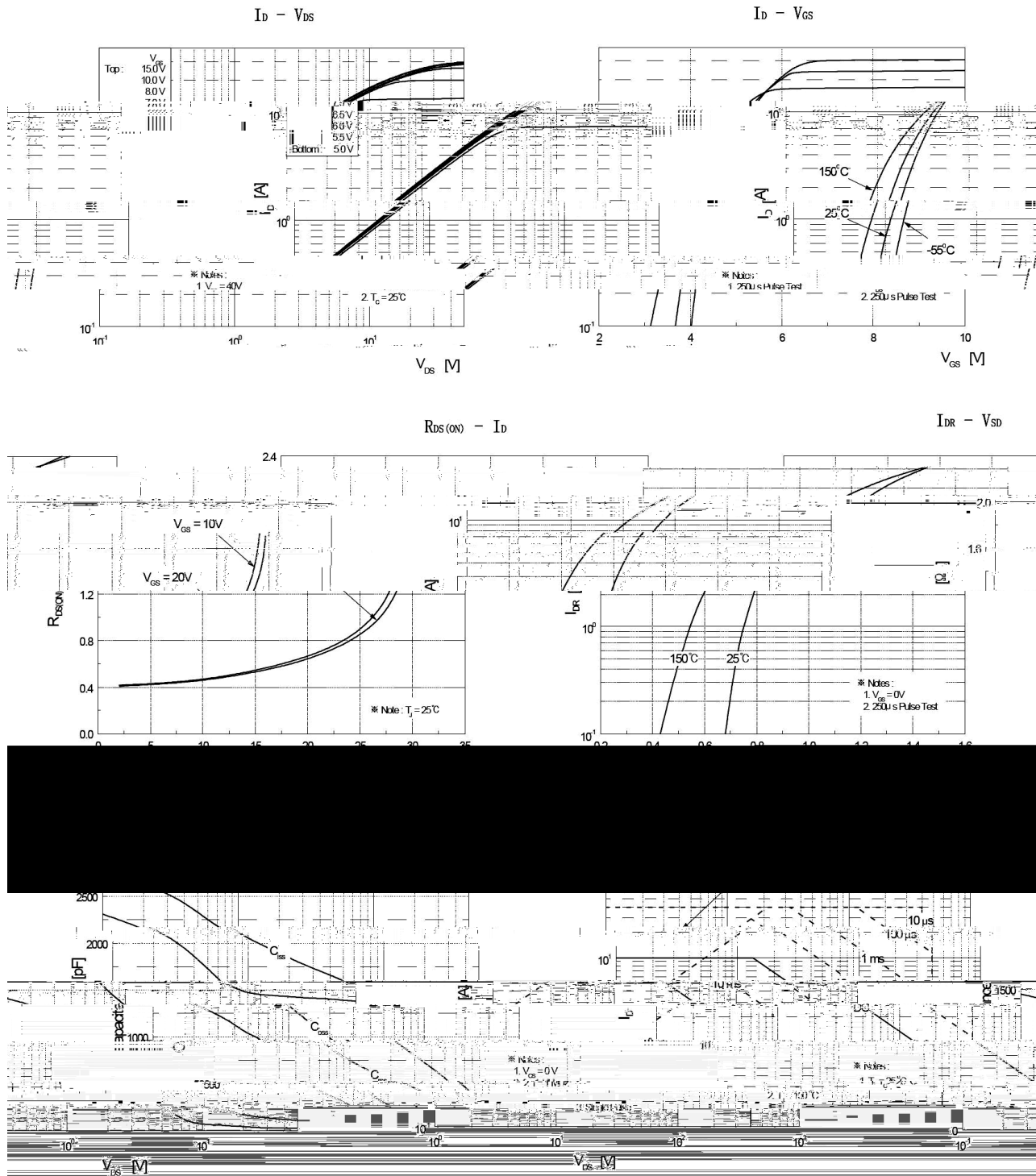
PIN1 G

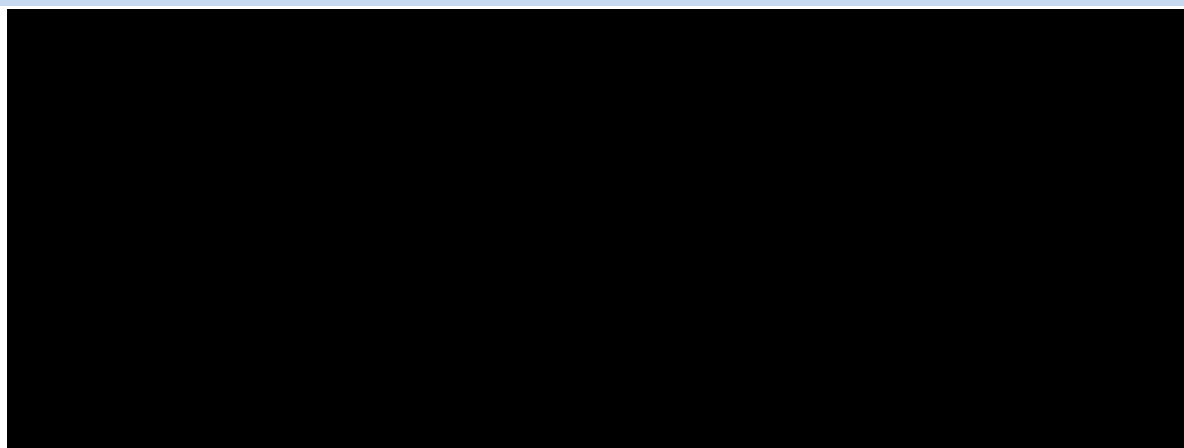
PIN 2 D

PIN 3 S

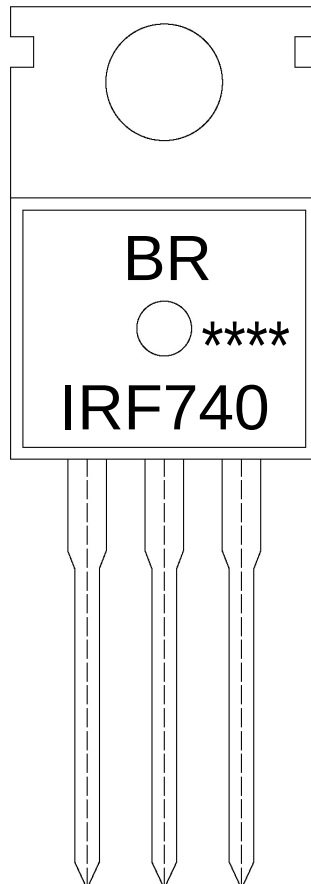
Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DSS}	400	V
Drain Current	$I_D(T_C=25^{\circ}C)$	10	A
	$I_D(T_C=100^{\circ}C)$	6.3	A
Pulsed Drain Current	I_{DM}	40	A
Gate-Source Voltage	V_{GSS}	± 30	V
Avalanche Current	I_{AR}	10	A
Single Pulsed Avalanche Energy	E_{AS}	450	mJ
Repetitive Avalanche Energy	E_{AR}	13.4	mJ
Total Power Dissipation	$P_D(T_C=25^{\circ}C)$	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}	$V_{GS}=0V$ $I_D=250\mu A$	400			V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS}=400V$ $V_{GS}=0V$			10	μA
		$V_{DS}=320V$ $T_C=125^{\circ}C$			100	μA
Gate-Body Leakage Current Forward	I_{GSS}	$V_{GS}=\pm 30V$ $V_{DS}=0V$			± 0.1	μA
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS}=V_{GS}$ $I_D=250\mu A$	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	
Turn-On Delay Time	$t_{d(on)}$	$V_{DD}=200V$ $I_D=10A$ $R_G=25\Omega$		25	60	ns
Turn-On Rise Time	t_r			75	160	
Turn-Off Delay Time	$t_{d(off)}$			115	240	
Turn-Off Fall Time	t_f			70	150	





Symbol		Dimensions In Millimeters		Symbol		Dimensions In Millimeters	
		Min	Max			Min	Max
	A	9.8	10.2		C	1.2	1.4
	B	5.6	6.4		D	6.3	6.7
	E	15.7	16.1		F	9.0	9.4
	G	12.6	13.6		H	2.2	2.6
	I	9.6	10.6		J	0.7	0.9
	K	7.7	8.2		L	3.2	3.7
	M	4.5	5.0		N	1.25	1.45



BR

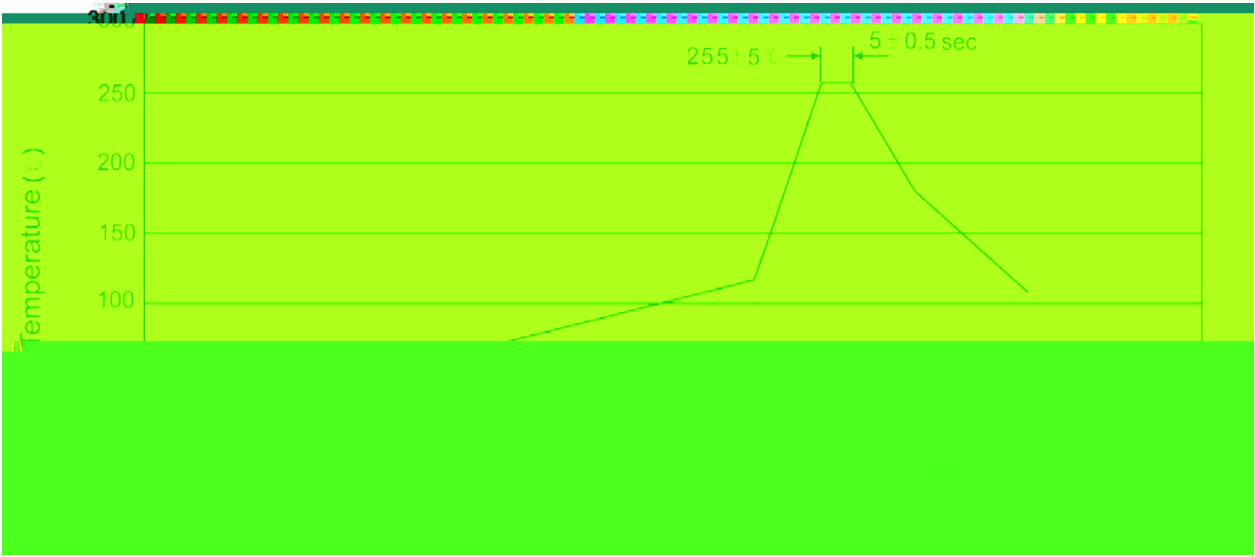
IRF740

Note:

BR: Company Code

IRF740: Product Type.

****: Lot No. Code, code change with Lot No.



Note:

- 1

25 150

60 90sec;
- 2

255±5

5±0.5sec;
- 3

2 10

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

270±5

10±1 sec.

Temp.:270±5

Time:10±1 sec

/ 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 /	Units/Outer Box /	Tube	Inner Box	Outer Box
TO-220/F	50	20	1,000	5	5,000	532×31.4×5.5	555×164×50	575×290×180