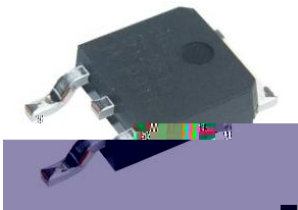
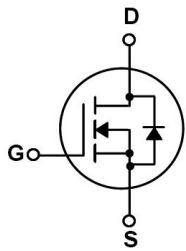


Rev.D May.-2016

TO-252 N MOS N-CHANNEL MOSFET in a TO-252 Plastic Package.

Low $R_{DS(on)}$, low gate charge, low C_{rss} , fast switching.

Suited for low voltage applications such as automotive, DC/DC Converters, and high efficiency switching for power management in portable and battery operated products.

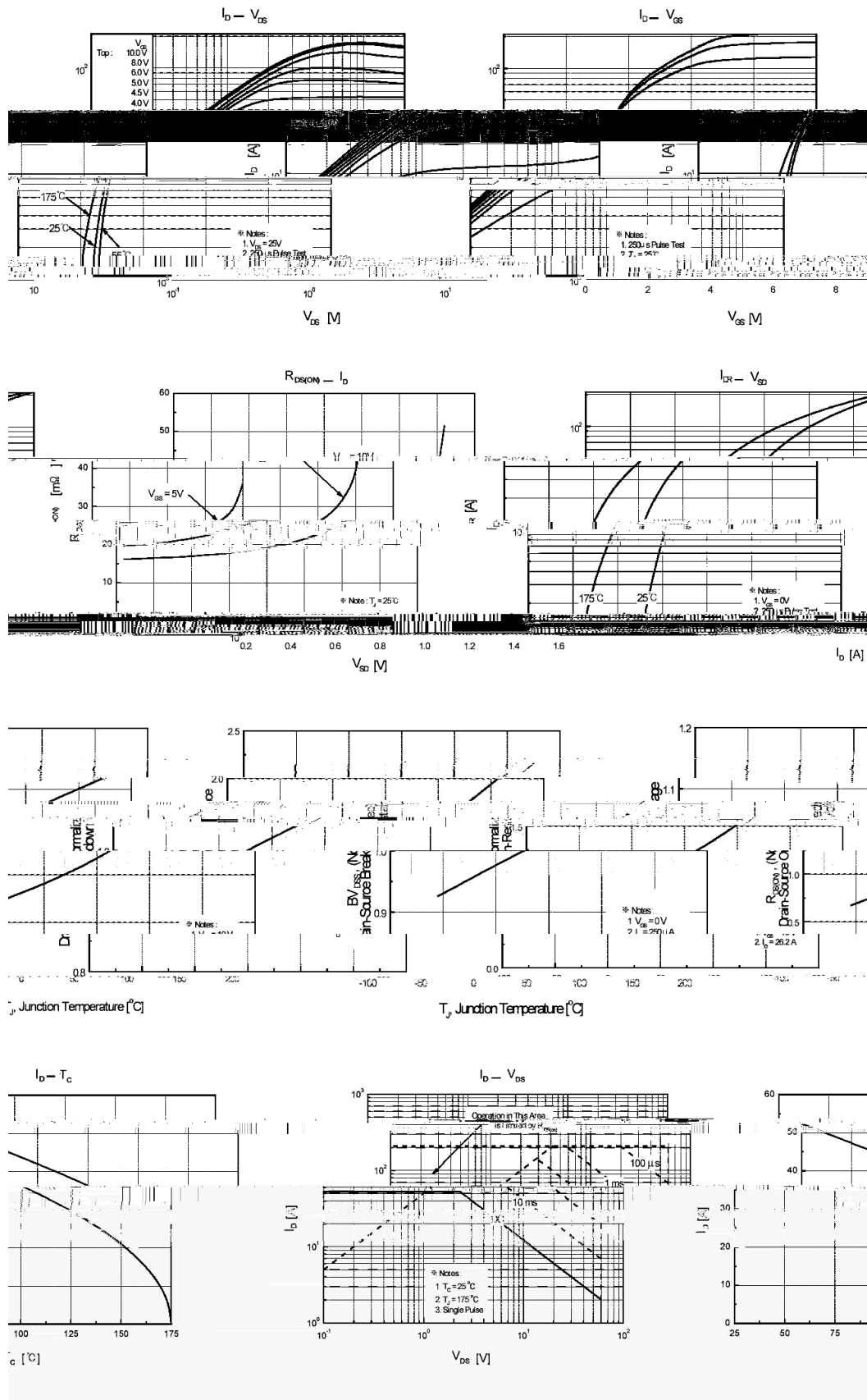


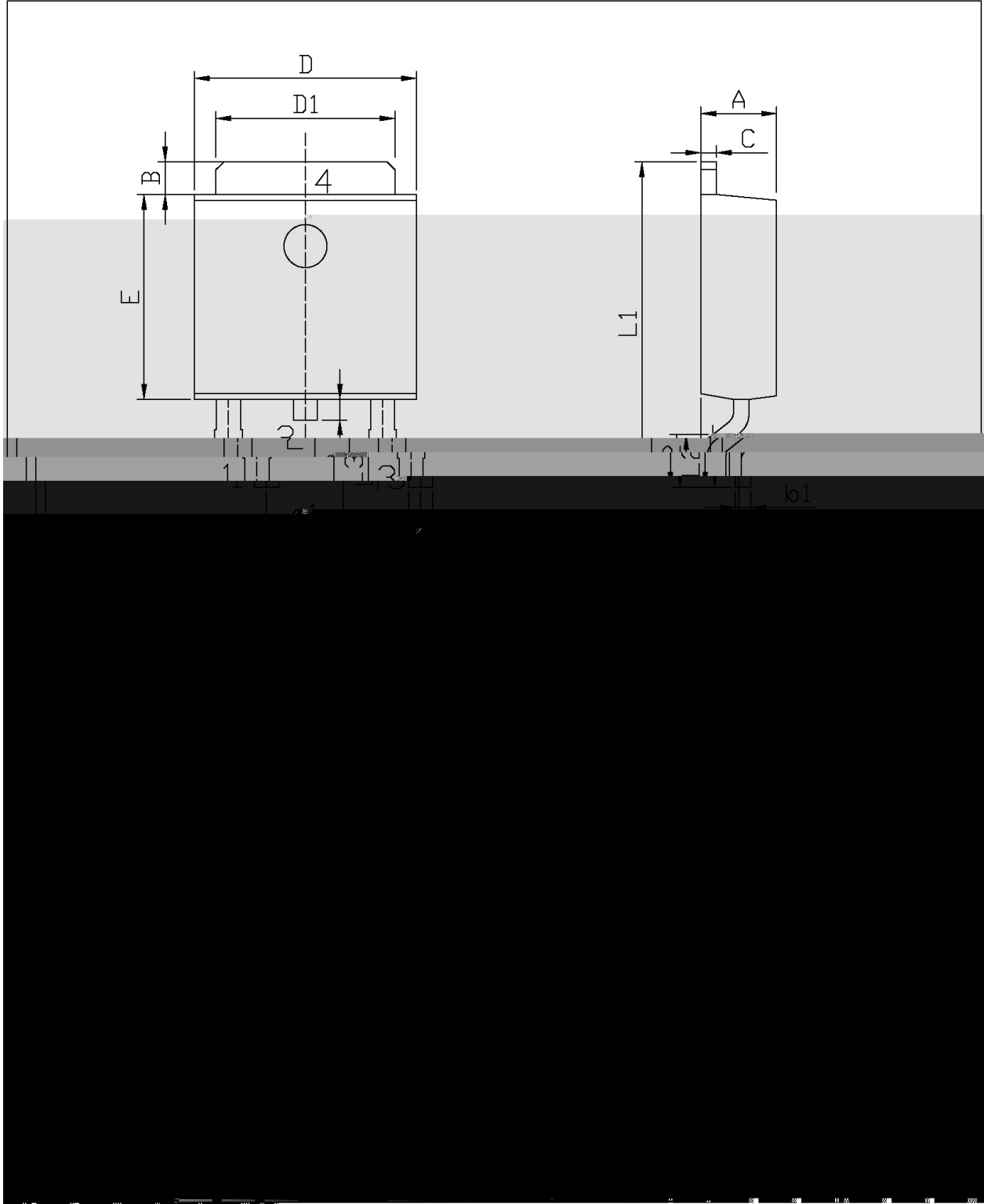
PIN1 G PIN 2 D PIN 3 S PIN 4 D

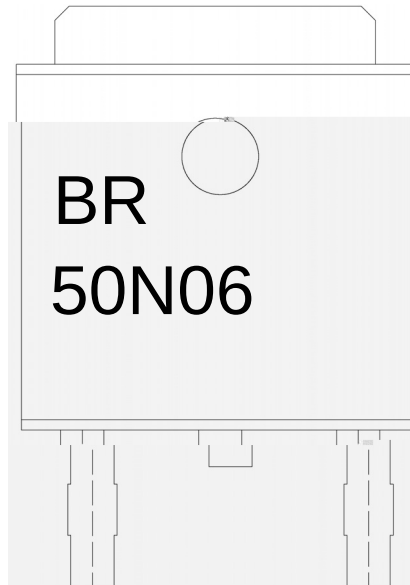
See Marking Instructions.

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DSS}	60	V
Drain Current	$I_D(T_C=25^\circ\text{C})$	50	A
Drain Current	$I_D(T_C=100^\circ\text{C})$	35.4	A
Drain Current - Pulsed	I_{DM}	200	A
Gate-Source Voltage	V_{GS}	± 20	V
Single Pulsed Avalanche Energy	E_{AS}	490	mJ
Repetitive Avalanche Energy	E_{AR}	12	mJ
Power Dissipation	$P_D(T_C=25^\circ\text{C})$	85	W
Junction Temperature Range	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55 150	$^\circ\text{C}$

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	BV_{DSS}	$V_{GS}=0V$ $I_D=250\mu\text{A}$	60			V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS}=60V$ $V_{GS}=0V$			1.0	μA
		$V_{DS}=48V$ $T_C=150^\circ\text{C}$			10	
Gate-Body Leakage Current Forward	I_{GSS}	$V_{GS}=\pm 20V$ $V_{DS}=0V$			± 0.1	μA
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS}=V_{GS}$ $I_D=250\mu\text{A}$	2		4	V
Total Gate Charge	Q_g	$V_{DS}=48V$ $I_D=50\mu\text{A}$ $V_{GS}=10V$		32	42	nC
Static Drain-Source On-Resistance	$R_{DS(on)}$	$V_{GS}=10V$ $I_D=25\mu\text{A}$		0.018	0.022	$\text{m}\Omega$
Drain-Source Diode Forward Voltage	V_{SD}	$V_{GS}=0V$ $I_S=50\mu\text{A}$			1.5	V
Input Capacitance	C_{iss}	$V_{DS}=25V$ $V_{GS}=0V$ $f=1.0\text{MHz}$		1050	1365	pF
Output Capacitance	C_{oss}			460	600	
Reverse Transfer Capacitance	C_{rss}			70	90	
Turn-On Delay Time	$t_{d(on)}$	$V_{DD}=30V$ $I_D=25\mu\text{A}$ $R_G=25\Omega$		20	50	ns
Turn-On Rise Time	t_r			100	210	
Turn-Off Delay Time	$t_{d(off)}$			80	170	
Turn-Off Fall Time	t_f			85	180	







BR

50N06

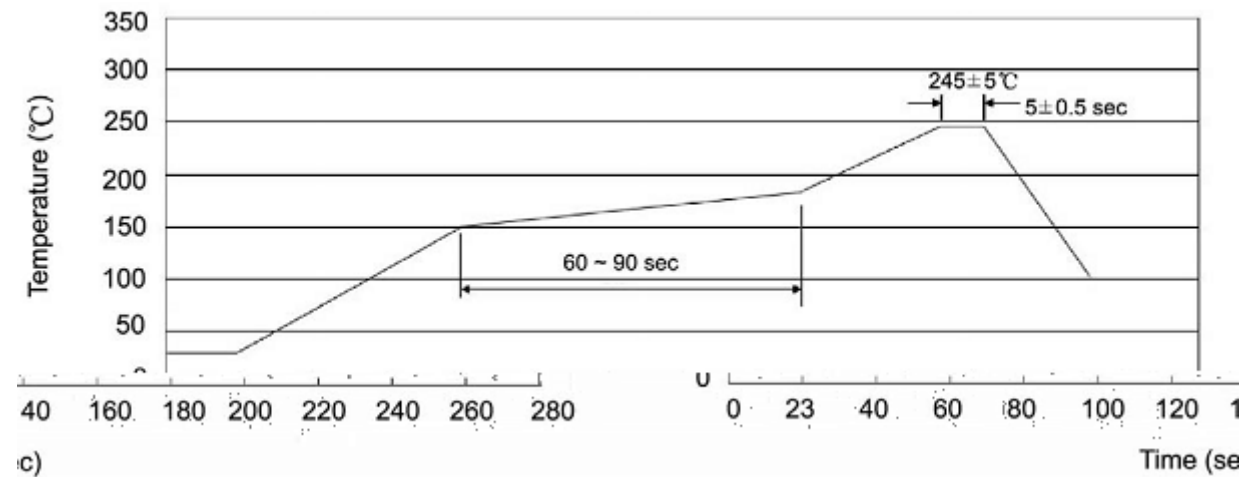
Note:

BR: Company Code

50N06: Product Type Code.

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

Temperature Profile for IR Reflow Soldering(Pb-Free)



Note:

- 1

25 150

60 90sec;

2

245 5

5 0.5sec;

3

2 10 /sec.
- 1.Preheating:25~150 , Time:60~90sec.

2.Peak Temp.:245 5 , Duration:5 0.5sec.

3. Cooling Speed: 2~10 /sec.

260 5 10 1 sec. Temp.:260±5°C Time:10±1 sec

/ REEL

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm ³)		
	只 卷盘	卷盘 盒	只 盒	盒 箱	只 箱		盒	箱

/ TUBE

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm ³)		
	只 套管	套管 盒	只 盒	盒 箱	只 箱	套管	盒	箱