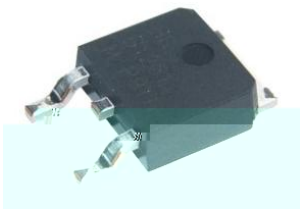
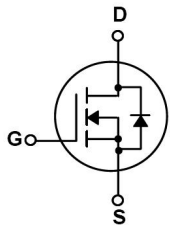


TO-252      N      MOS      N-CHANNEL MOSFET in a TO-252 Plastic Package.

Fast switching, low on resistance, low gate charge, low reverse transfer capacitances.

Used in various power switching circuit for system miniaturization and higher efficiency .

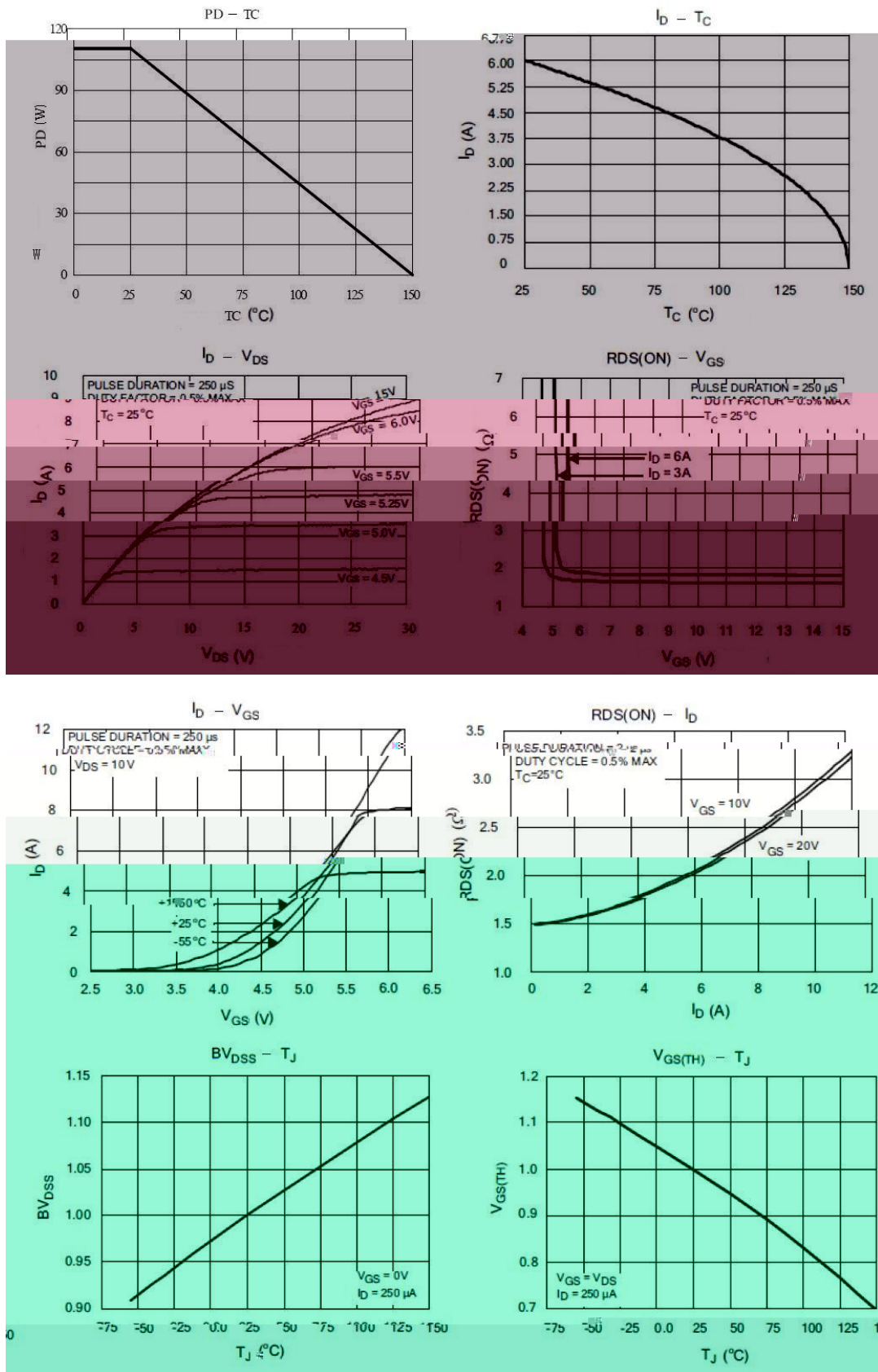


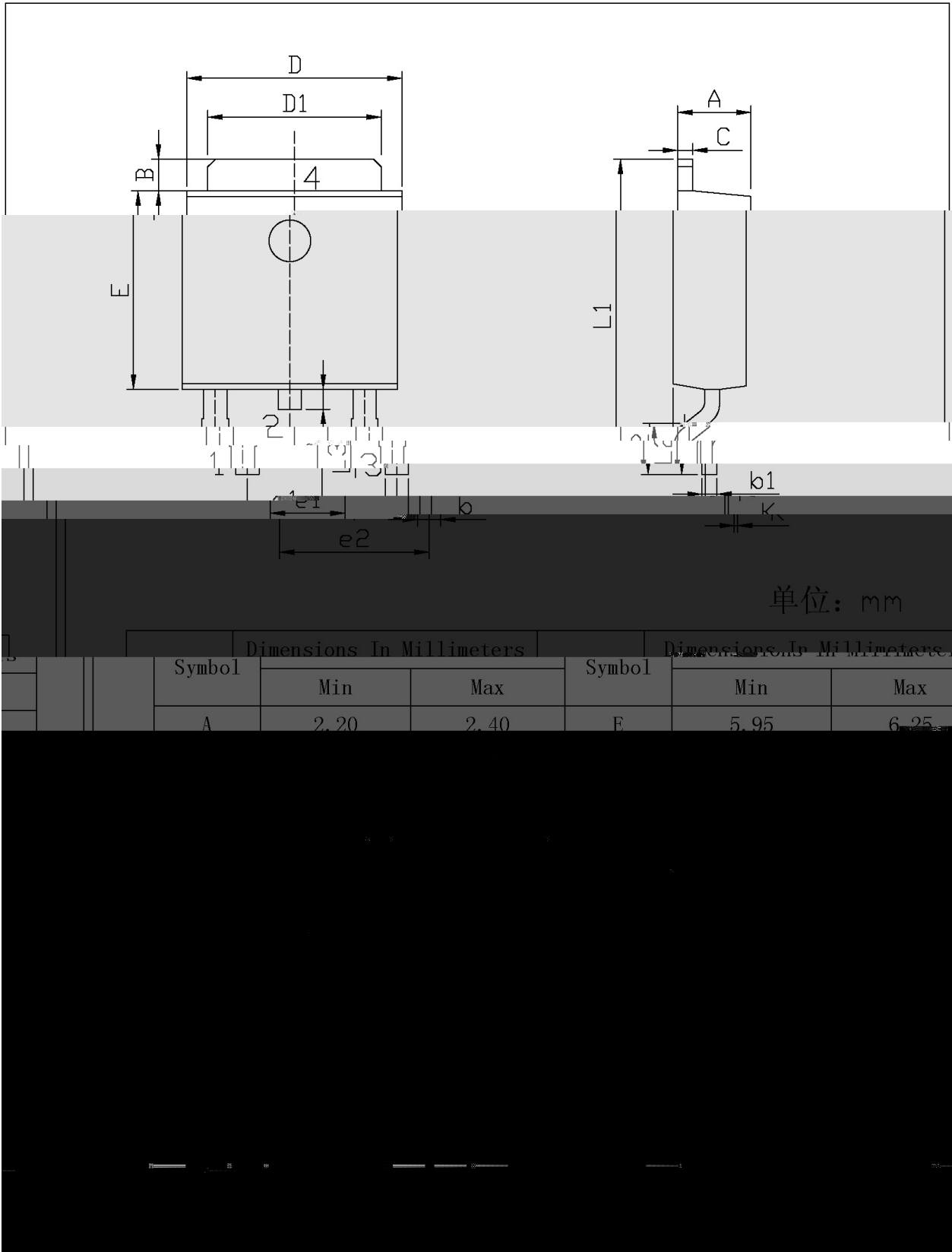
PIN1 G      PIN 2 D      PIN 3 S      PIN 4 D

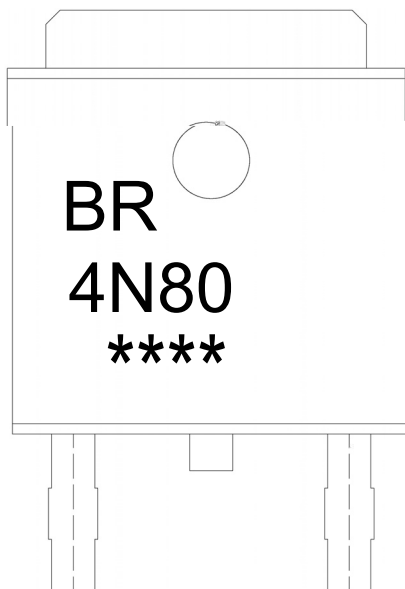
See Marking Instructions.

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	$V_{DSS}$	800	V
Drain Current	$I_D(T_c=25^\circ\text{C})$	4.0	A
Drain Current	$I_D(T_c=100^\circ\text{C})$	3.2	A
Drain Current - Pulsed	$I_{DM}$	16	A
Gate-Source Voltage	$V_{GS}$	$\pm 30$	V
Single Pulsed Avalanche Energy	$E_{AS}$	300	mJ
Repetitive Avalanche Energy	$E_{AR}$	26	mJ
Avalanche Current	$I_{AR}$	2.3	A
Power Dissipation	$P_D(T_c=25^\circ\text{C})$	110	W
Operating and Storage Temperature Range	$T_J, T_{STG}$	-55 to 150	
Thermal Resistance, Junction to Case	$R_{JC}$	1.14	/W
Thermal Resistance, Junction to Ambient	$R_{JA}$	62.5	/W

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	$BV_{DSS}$	$V_{GS}=0V$ $I_D=250\mu A$	800			V
Zero Gate Voltage Drain Current	$I_{DSS}$	$V_{DS}=800V$ $V_{GS}=0V$			25	$\mu A$
		$V_{DS}=640V$ $T_a=125^\circ\text{C}$			250	$\mu A$
Gate-Body Leakage Current Forward	$I_{GSS}$	$V_{GS}=\pm 30V$ $V_{DS}=0V$			$\pm 100$	nA
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	$R_{DS(on)}$	$V_{GS}=10V$ $I_D=2.4A$		1.85	2.2	
Forward Transconductance	$g_{FS}$	$V_{DS}=15V$ $I_D=2.4A$		7.5		S
Drain-Source Diode Forward Voltage	$V_{SD}$	$V_{GS}=0V$ $I_S=4.0A$			1.5	V
Input Capacitance	$C_{iss}$	$V_{DS}=25V$ $V_{GS}=0V$ $f=1.0MHz$		1350		pF
Output Capacitance	$C_{oss}$			100		pF
Reverse Transfer Capacitance	$C_{rss}$			15		pF
Turn-On Delay Time	$t_{d(on)}$		$V_{DD}=400V$ $I_D=4.0A$ $R_G=12$ $V_{GS}=10V$		16	
Turn-On Rise Time	$t_r$			18		ns
Turn-Off Delay Time	$t_{d(off)}$			50		ns
Turn-Off Fall Time	$t_f$			25		ns







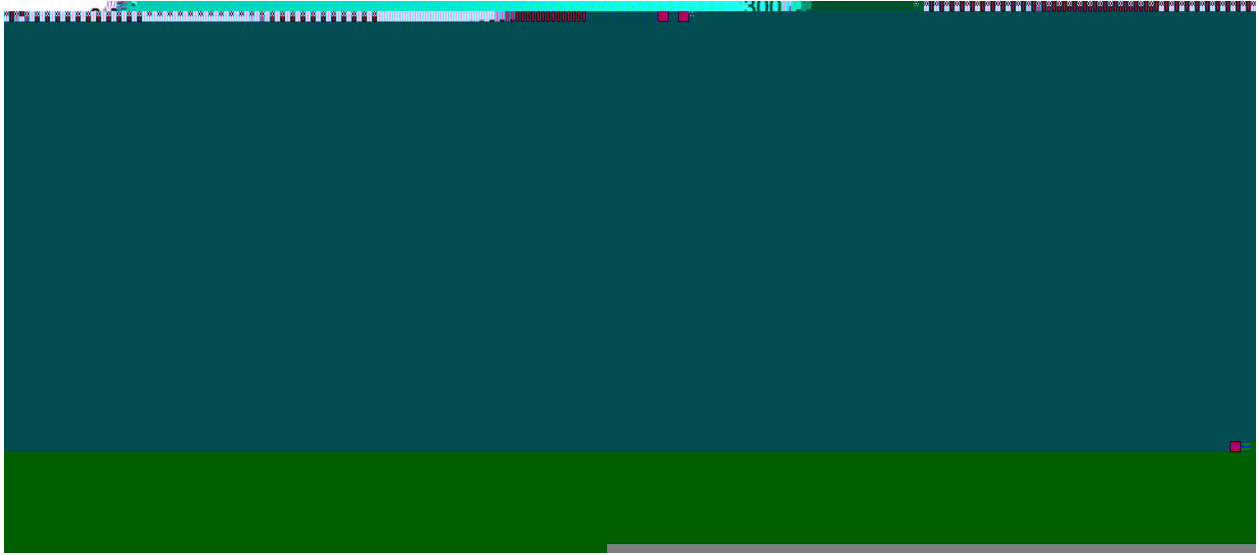
BR  
4N80

Note:

BR: Company Code

4N80: Product Type.

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


**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.            |

270 5                      10 1 sec.                      Temp.:270±5                      Time:10±1 sec

## / REEL

Package Type	Units					Dimension (unit mm <sup>3</sup> )		
	Units/Reel	Reels/Inner Box	Units/Inner Box	Inner Boxes/Outer Box	Units/Outer Box	Reel	Inner Box	Outer Box
TO-252	2,500	2	5,000	5	25,000	13 ×16	360×360×50	385×257×392

## / TUBE

Package Type	Units					Dimension (unit mm <sup>3</sup> )		
	Units/Tube	Tubes/Inner Box	Units/Inner Box	Inner Boxes/Outer Box	Units/Outer Box	Tube	Inner Box	Outer Box
TO-251/252	75	48	3,600	5	18,000	526×20.5×5.25	555×164×50	