

Rev.B Mar.-2024

TO-92 N MOS
N-CHANNEL MOSFET in a TO-92 Plastic Package.

Low gate charge, low crss, fast switching.

DC/DC

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DSS}	600	V
Drain Current – Continuous	$I_D(T_C=25^\circ\text{C})$	2.0	A
Drain Current - Pulsed	I_{DM}	8.0	A
Gate-Source Voltage	V_{GSS}	± 30	V
Single Pulsed Avalanche Energy	E_{AS}	120	mJ
Avalanche Current	I_{AR}	2.0	A
Power Dissipation	P_D	3.5	W
Junction Storage Temperature Range	T_J, T_{STG}	-55 to 150	
Thermal Resistance Junction-case	R_{thJC}	35.7	/W
Thermal Resistance Junction-ambient	R_{thJA}	200	/W

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	BV_{DSS}	$V_{GS}=0V$ $I_D=250\mu A$	600			V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS}=600V$ $V_{GS}=0V$			10	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	$R_{DS(on)}$	$V_{GS}=10V$ $I_D=1.0A$		4.0	5.0	
Drain-Source Diode Forward Voltage	V_{SD}	$V_{GS}=0V$ $I_S=2.0A$			1.4	V
Input Capacitance	C_{iss}	$V_{DS}=25V$ $V_{GS}=0V$ $f=1.0MHz$		278		pF

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Total Gate Charge	Qg	I _D = 2.0A, V _{DS} = 480V V _{GS} = 10V		6.6		nC
Gate-to-Source Charge	Qgs			1.4		nC
Gate-to-Drain Charge	Qgd			2.0		nC
Continuous Diode Forward Current	I _s				2.0	A

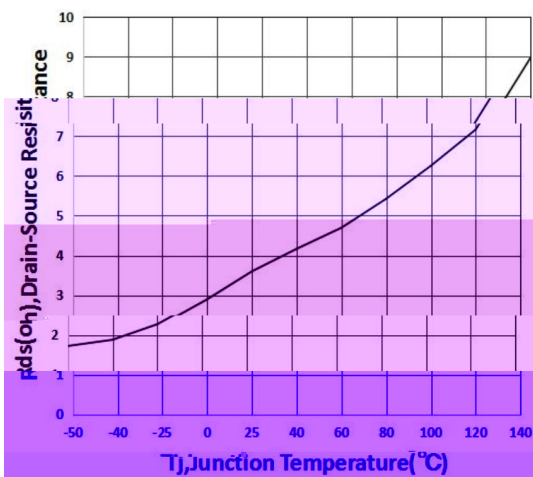
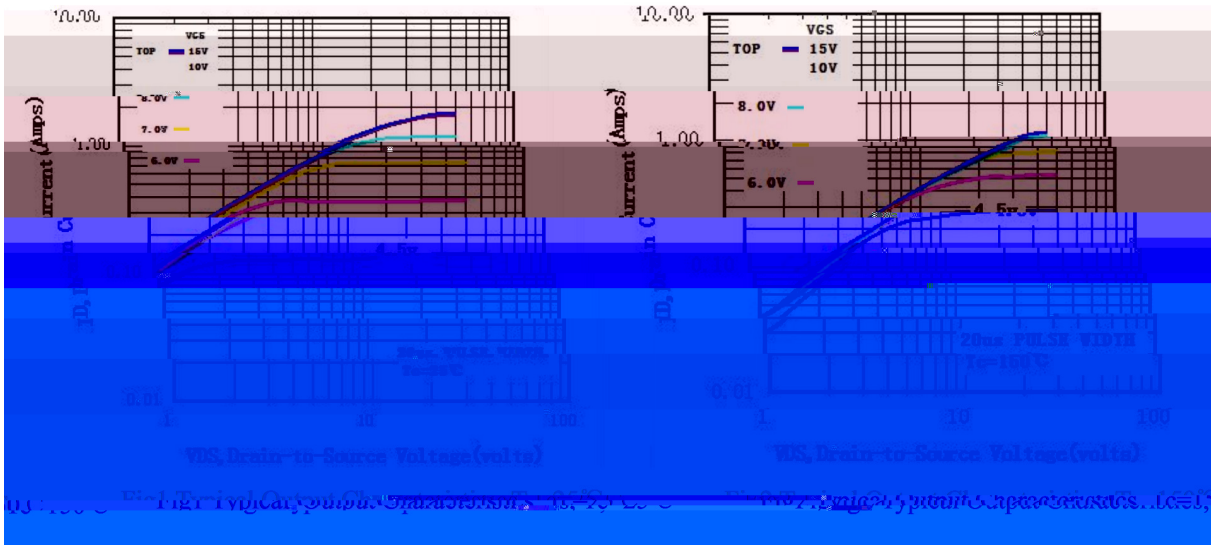


Fig 4 Nonlinear Drain Resistance vs. Temperature

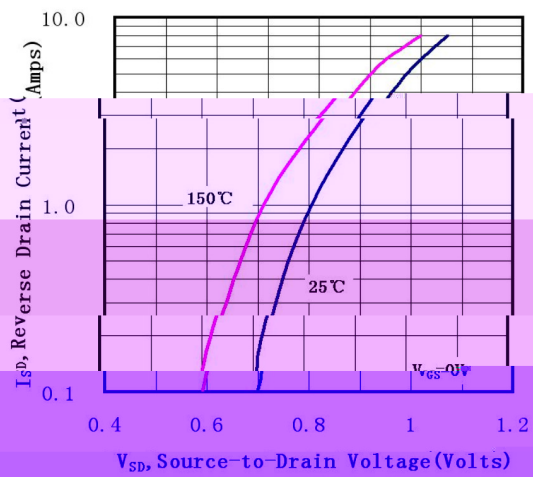


Fig 5 Typical Source-Drain Diode Forward Voltage

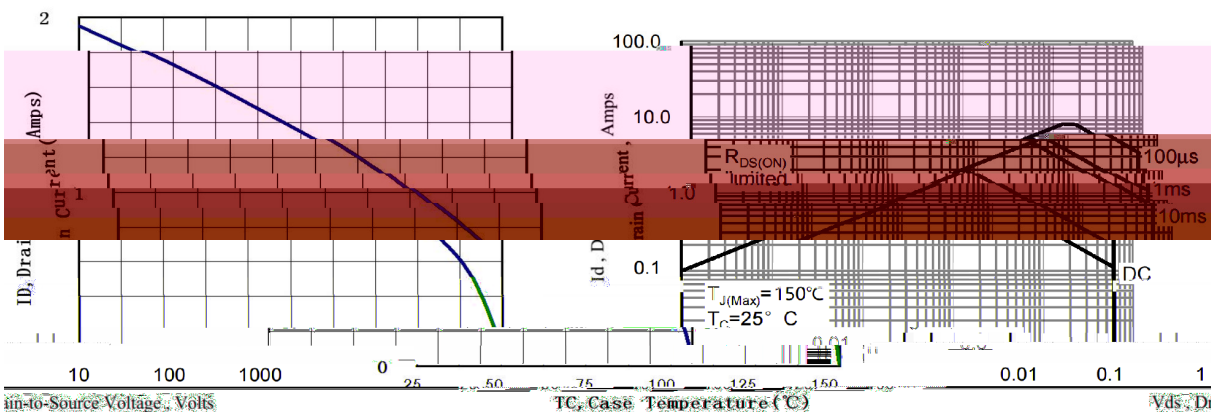


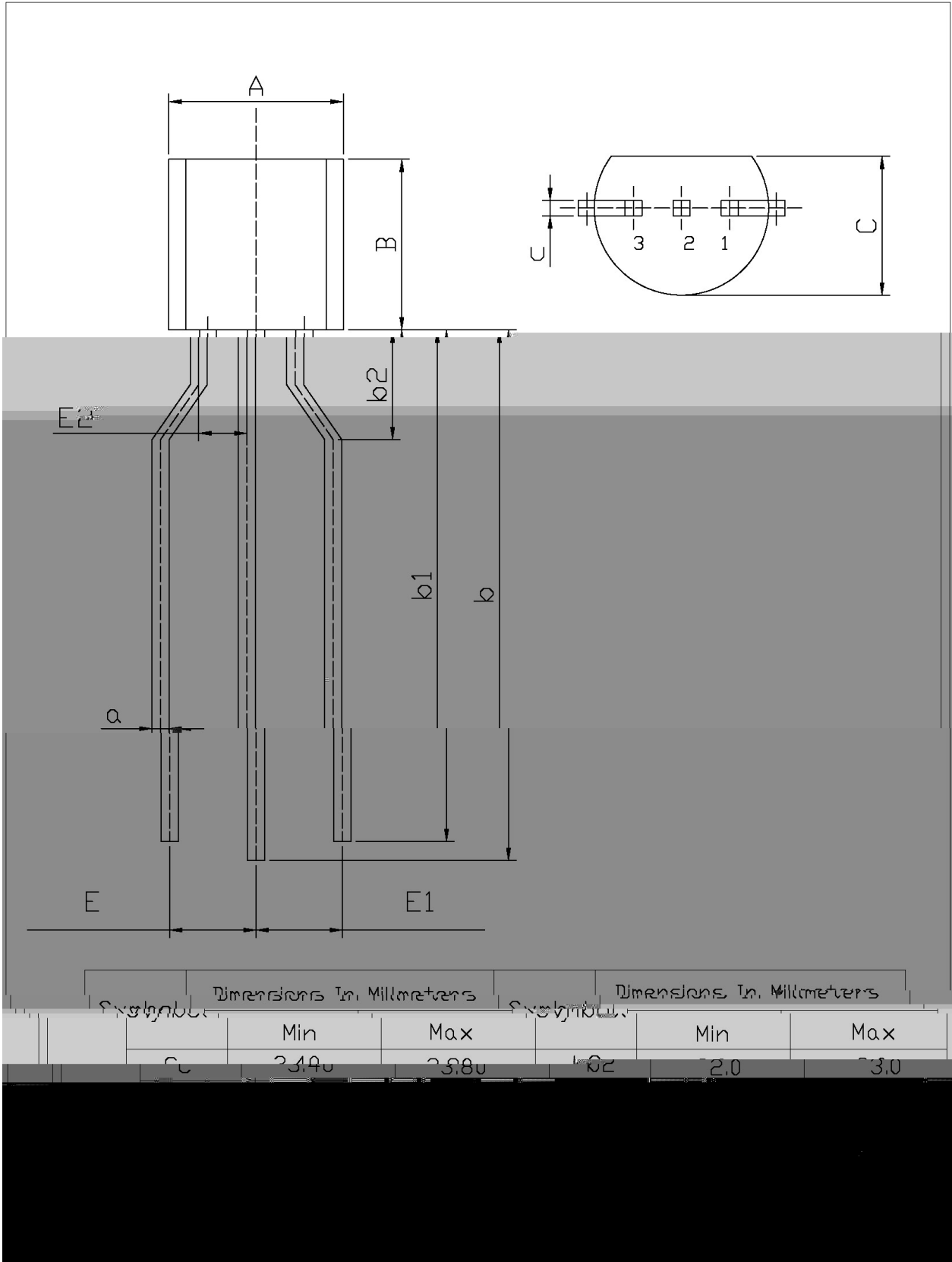
Fig 6 Maximum Safe Operating Area

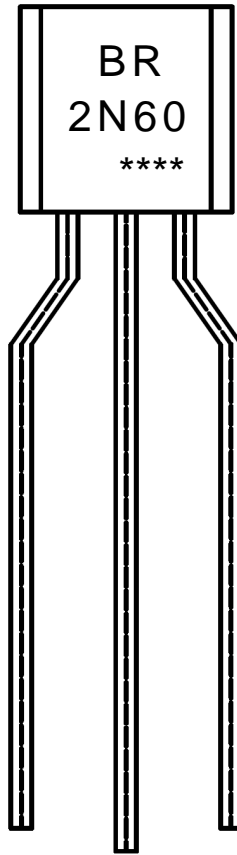
Fig 5 Maximum Drain Current Vs. Case Temperature

Fig 6 Maximum Safe Operating Area

T0-92

Unit:mm





BR

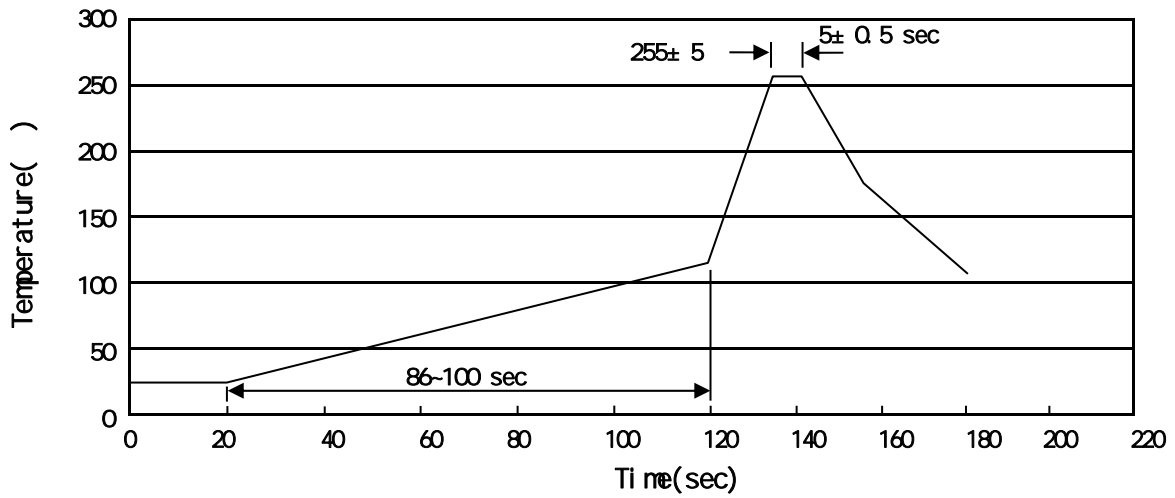
2N60

Note:

BR: Company Code

2N60: Product Type Code

****: 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

/ BULK

Package Type	Units					Dimension (unit mm3)		
TO-92	1,000	10	10,000	5	50,000	135×190	237×172×102	560×245×195

/ AMMO

Package Type	Units					Dimension (unit mm3)	
TO-92	3,000	1	120	10	30,000	328×230×42	480×346×235