

DFN3×2-6L N

Common-Drain Dual N-Channel Enhancement MOSFET in a DFN3×2-6L Plastic Package.

$V_{DS(V)}=20V$ $I_D=10A$

$R_{DS(ON)}@4.5V$ 9.0m (Typ.7.8mR)

$R_{DS(ON)}@3.8V$ 9.7m (Typ.8.2mR)

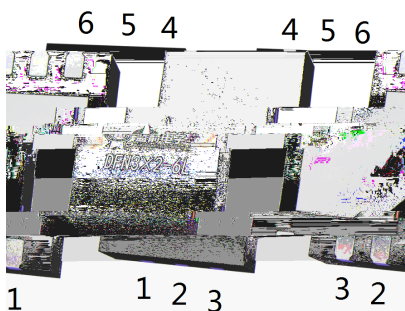
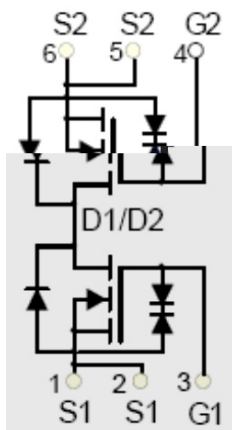
$R_{DS(ON)}@2.5V$ 12.5m (Typ.9.5mR)

2KV

ESD protected up to 2KV,HF Product.

POL

Handheld Instruments,POL Applications,Battery Protection Applications.



See Marking Instructions.

Parameter		Symbol	Rating	Unit
Drain-Source Voltage		V_{DSS}	20	V
Drain Current		I_D	10	A
Drain Current - Pulsed		I_{DM}	52	A
Gate-Source Voltage		V_{GSS}	± 10	V
Power Dissipation		P_D	1.5	W
Operating and Storage Temperature Range		T_J, T_{stg}	-55 to 150	$^{\circ}\text{C}$
Junction-to-Ambient	Steady-State	R_{JA}	83.3	/W

Parameter	Symbol	Test Conditions		Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	BV_{DSS}	$V_{GS}=0V$	$I_D=250\text{ A}$	20	21		V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS}=20V$	$V_{GS}=0V$			1.0	A
Gate-Body leakage current	I_{GSS}	$V_{GS}=\pm 10V$	$V_{DS}=0V$			± 10	A
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS}=V_{GS}$	$I_D=250\text{ A}$	0.5	0.7	1.0	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	$V_{GS}=4.5V$	$I_D=3A$		7.8	9.0	m
		$V_{GS}=4.0V$	$I_D=3A$		8.0	9.3	m
		$V_{GS}=3.8V$	$I_D=3A$		8.2	9.7	m
		$V_{GS}=3.1V$	$I_D=3A$		8.5	10.5	m
		$V_{GS}=2.5V$	$I_D=3A$		9.5	12.5	m
Diode Forward Voltage	V_{SD}	$V_{GS}=0V$	$I_S=1.0A$			1.2	V
Input Capacitance	C_{iss}	$V_{DS}=10V$ $f=1.0\text{MHz}$	$V_{GS}=0V$		1900		pF
Output Capacitance	C_{oss}				255		pF
Reverse Transfer Capacitance	C_{rss}				200		pF
Total Gate Charge	Q_g	$V_{GS}=4.5V$ $I_D=10A$	$V_{DS}=15V$		17.9		nC
Gate-Source Charge	Q_{gs}				1.5		nC
Gate-Drain Charge	Q_{gd}				4.7		nC
Turn-On Delay Time	$t_{d(on)}$	$V_{DS}=10V$ $R_L=1.35$	$V_{GS}=5.0V$ $R_{GEN}=3$		2.2		ns
Turn-On Rise Time	t_r				5.9		ns
Turn-Off Delay Time	$t_{d(off)}$				40		ns
Turn-Off Fall Time	t_f				90		ns

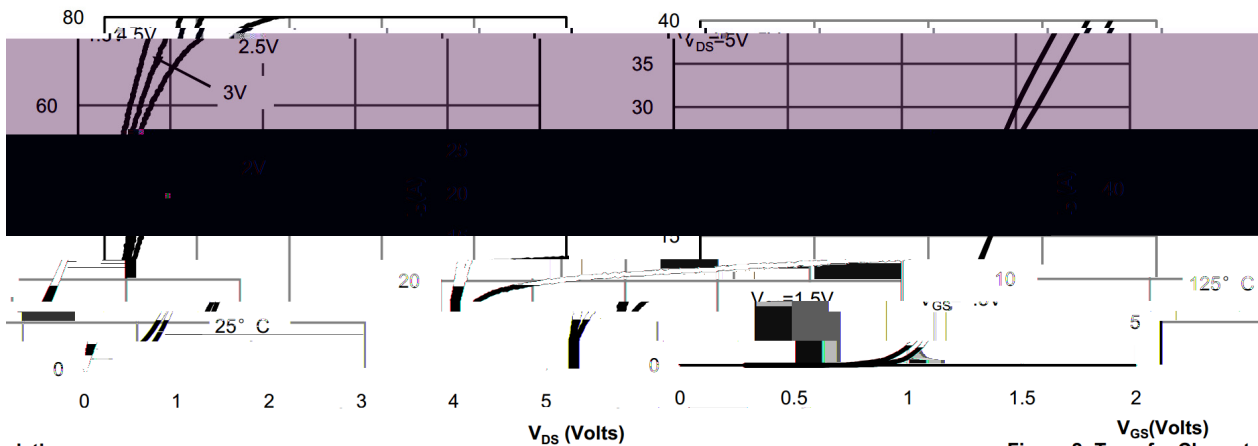


Fig 1: On-Region Characteristics

Figure 2: Transfer Characteristics

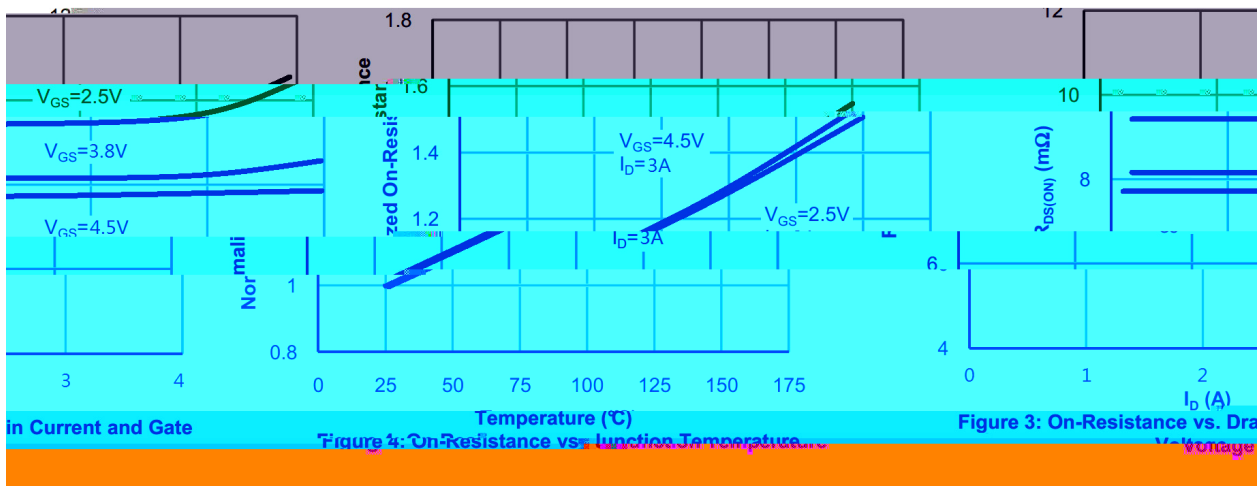


Figure 4: On-Resistance vs. Junction Temperature

Figure 3: On-Resistance vs. Drain Current

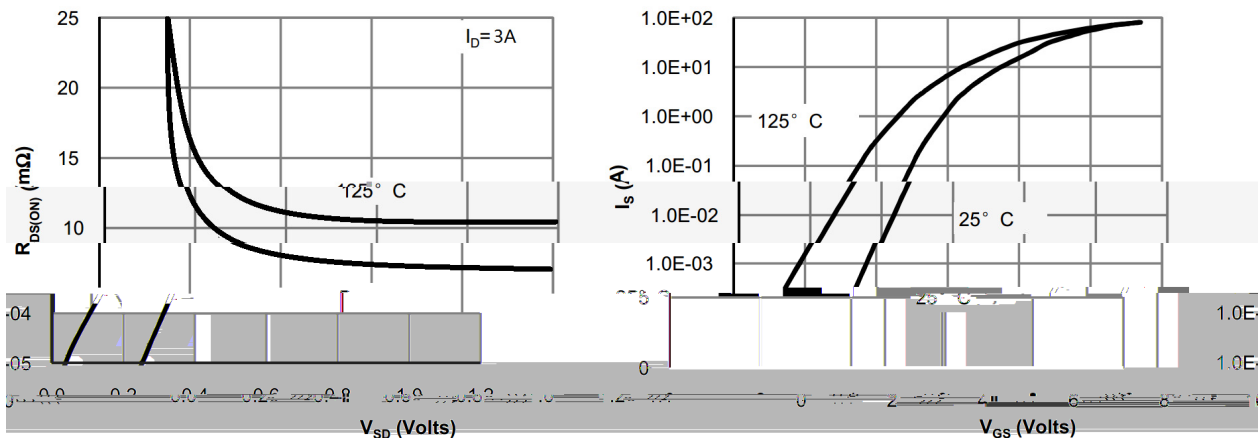
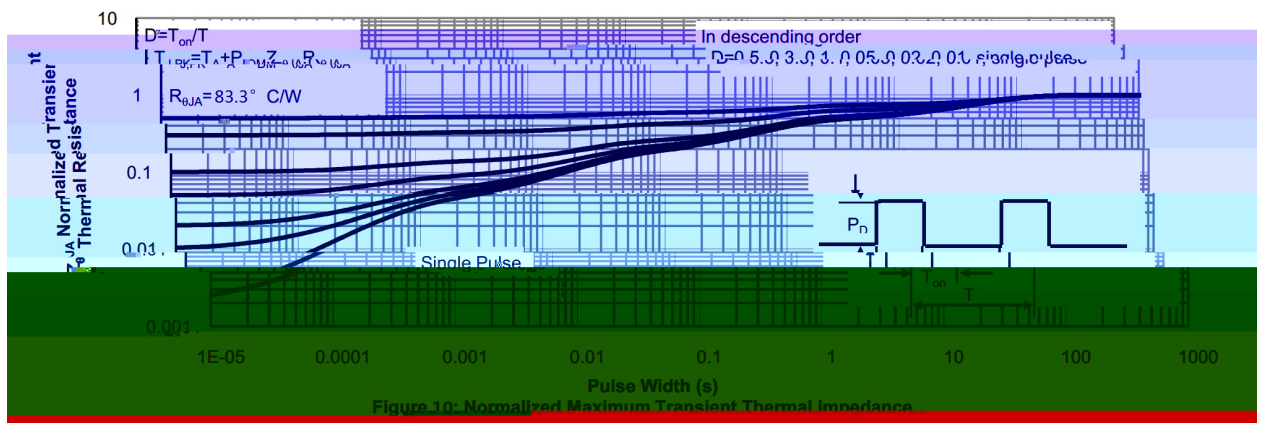
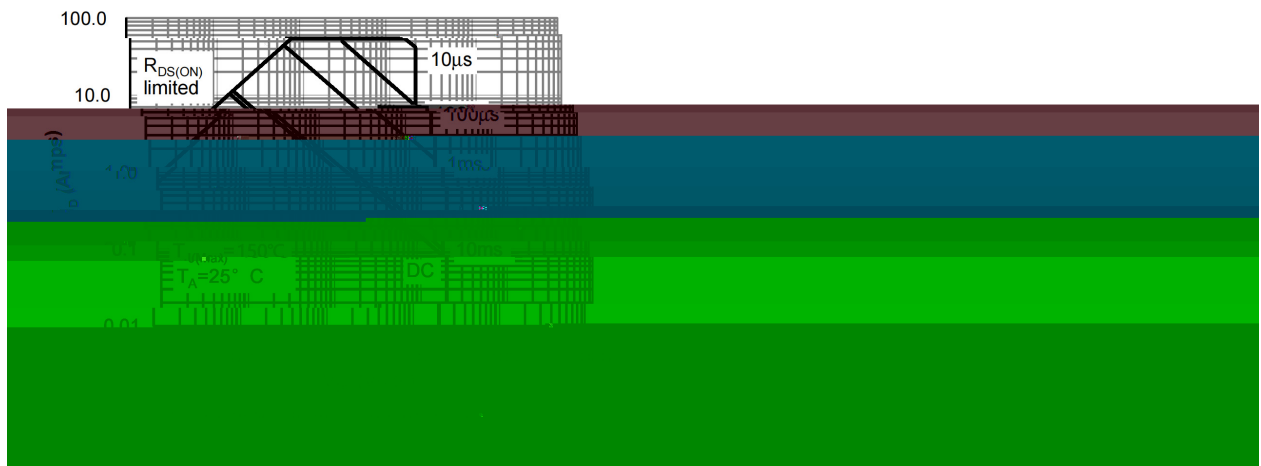
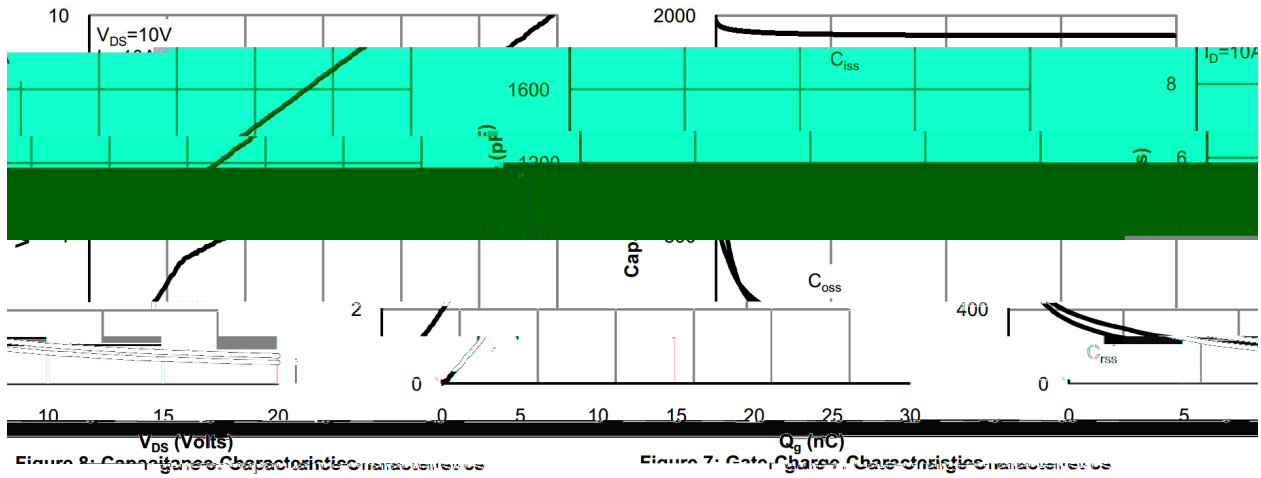


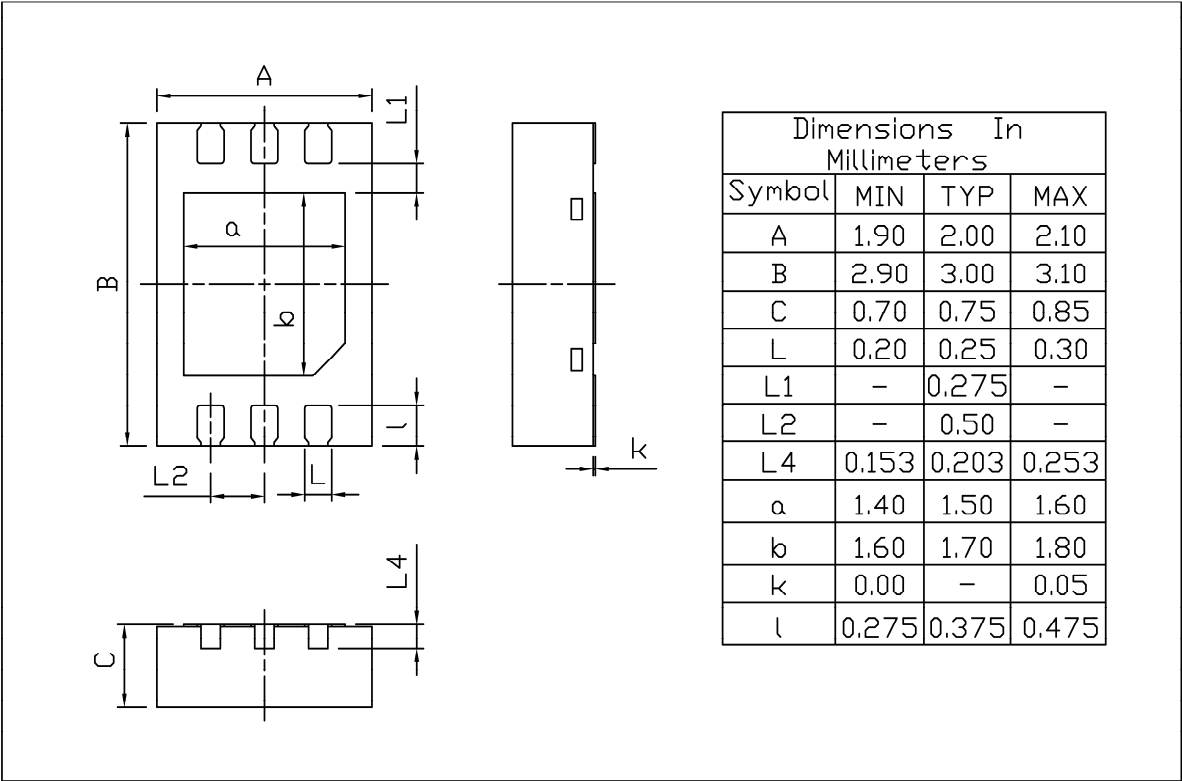
Figure 6: Body-Diode Characteristics

Figure 5: On-Resistance vs. Gate-Source Voltage

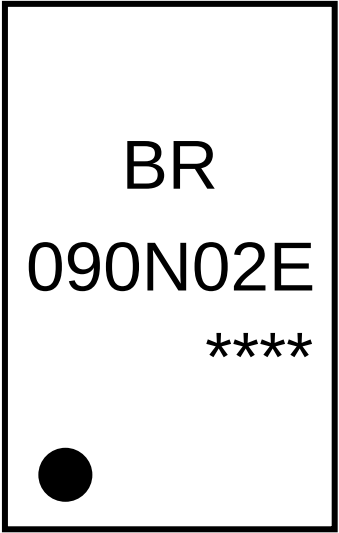


DFN3X2-6L

Unit:mm



Rev.00 202311



BR
090N02E

Note:

BR:	Company Code
090N02E:	Product Type Code
****:	Lot No. Code, code change with Lot No

1	150	180	60	90sec;
2	245±5			5±0.5sec;
3		2	10	/sec.

Package Type	Units					Dimension (unit mm ³)		
	Units/Reel /	Reels/Inner Box /	Units/Inner Box /	Inner Boxes/Outer Box /	Units/Outer Box /	Reel	Inner Box	Outer Box
DFN3×2-6L	3,000	10	30,000	4	120,000	7 ×8	210×205×205	445×435×230