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)

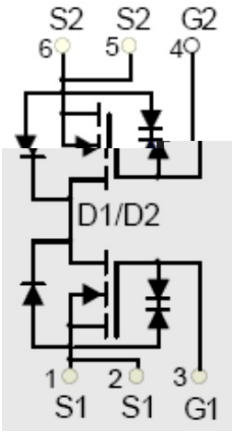
$R_{DS(ON)}$@2.5V 12.5m (Typ.9.5mR)

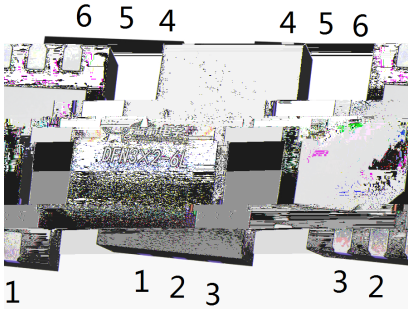
2KV

ESD protected up to 2KV,HF Product.

POL

Handheld Instruments,POL Applications,Battery Protection Applications.

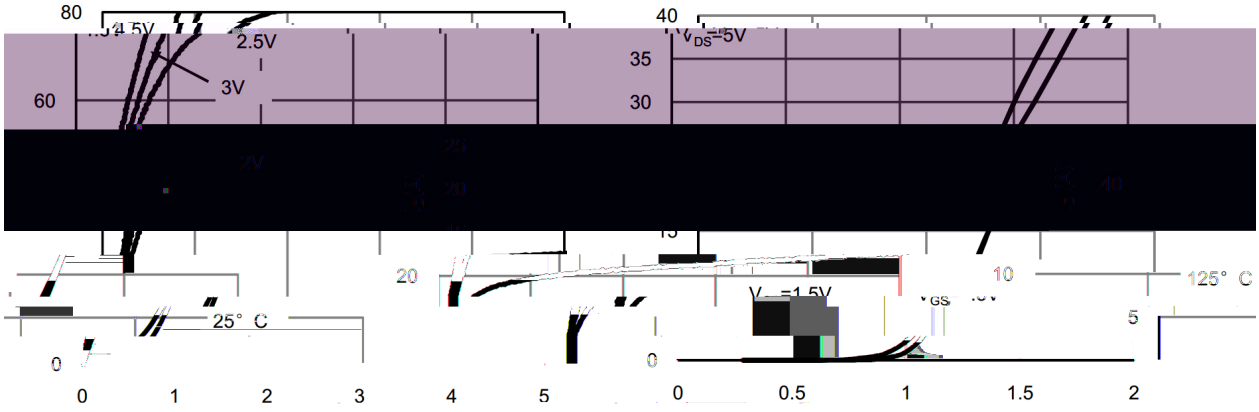




See Marking Instructions.

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	℃
Junction-to-Ambient	Steady-State	R_{JA}	83.3	/W

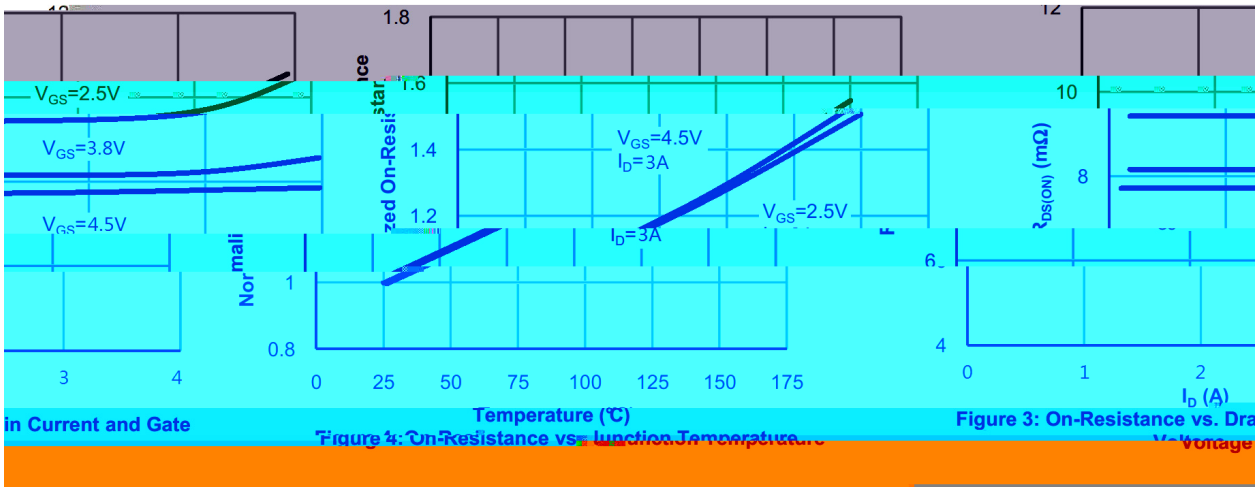
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	BV_{DSS}	V_{GS}=0V I_D=250 A	20	21		V
Zero Gate Voltage Drain Current	I_{DSS}	V_{DS}=20V V_{GS}=0V			1.0	A
Gate-Body leakage current	I_{GSS}	V_{GS}=±10V V_{DS}=0V			± 10	A
Gate Threshold Voltage	$V_{GS(th)}$	V_{DS}=V_{GS} I_D=250 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 V_{GS}=0V f=1.0MHz		1900		pF
Output Capacitance	C_{oss}			255		pF
Reverse Transfer Capacitance	C_{rss}			200		pF
Total Gate Charge	Q_g	V_{GS}=4.5V V_{DS}=15V I_D=10A		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 V_{GS}=5.0V R_L=1.35 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



ristics

Fig 1: On-Region Characteristics

Figure 2: Transfer Characte



in Current and Gate

Figure 4: On-Resistance vs. Junction Temperature

Figure 3: On-Resistance vs. Dra

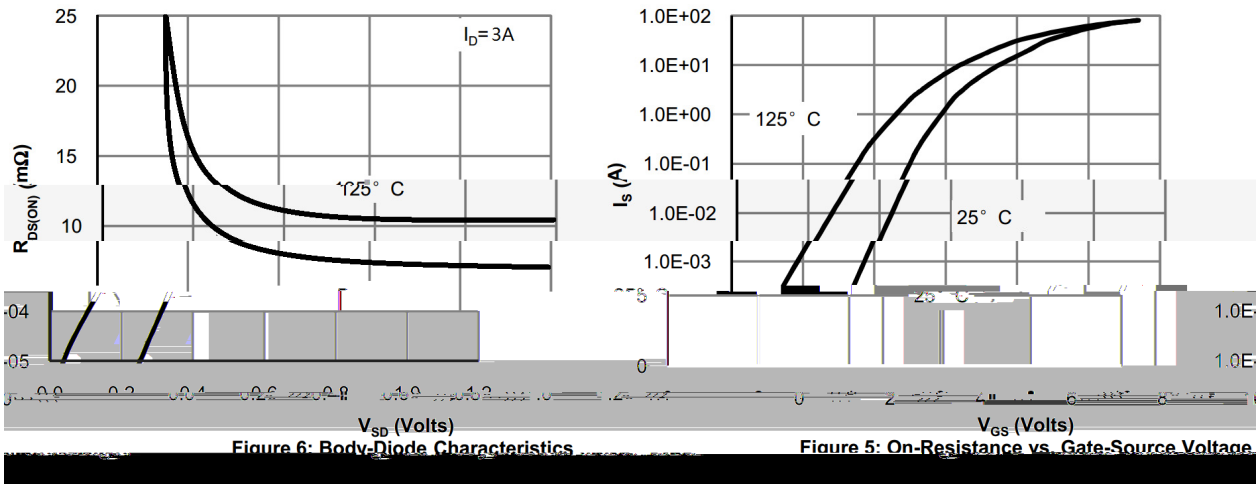


Figure 6: Body-Diode Characteristics

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

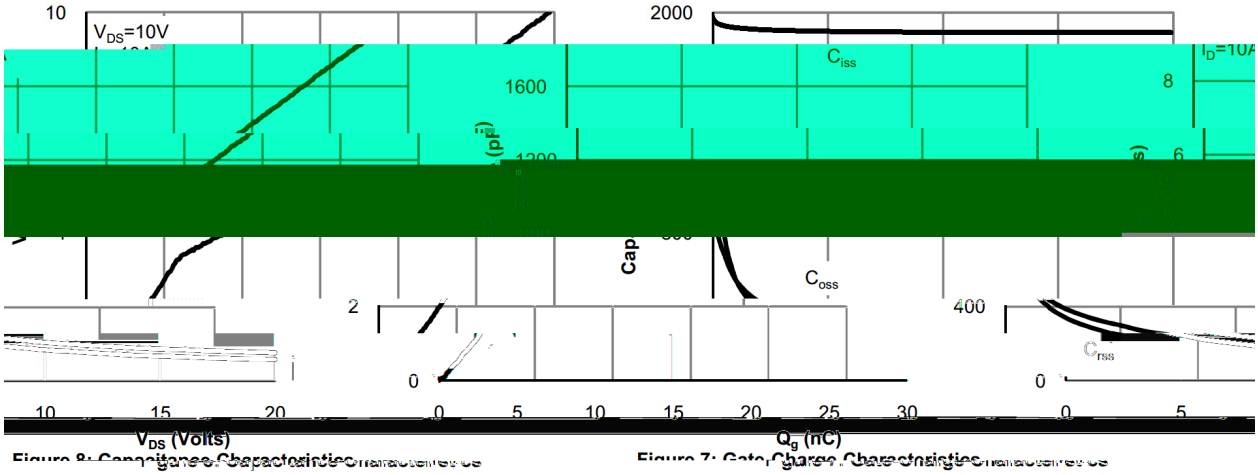
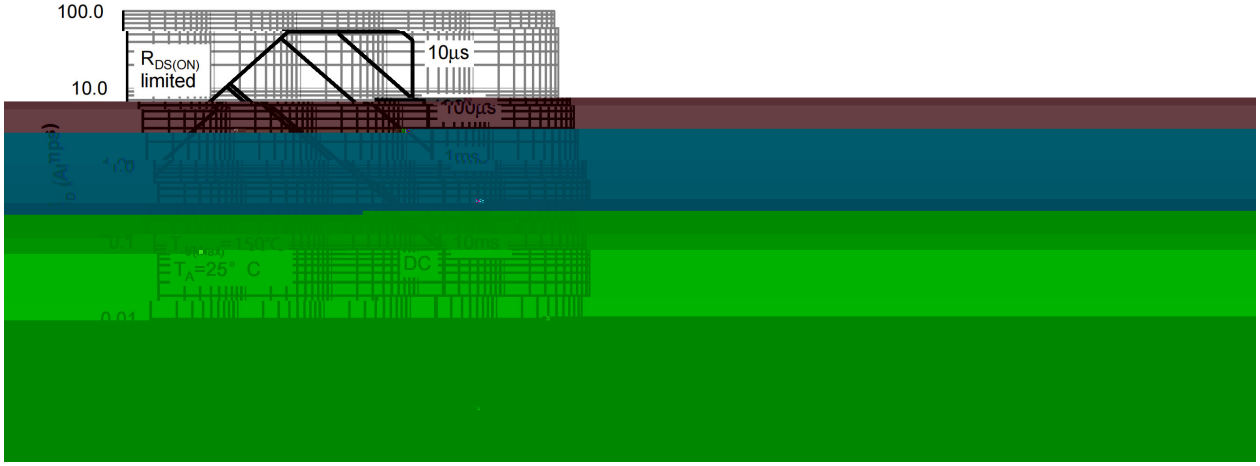


Figure 8: Capacitance Characteristics

Figure 7: Gate Charge Characteristics



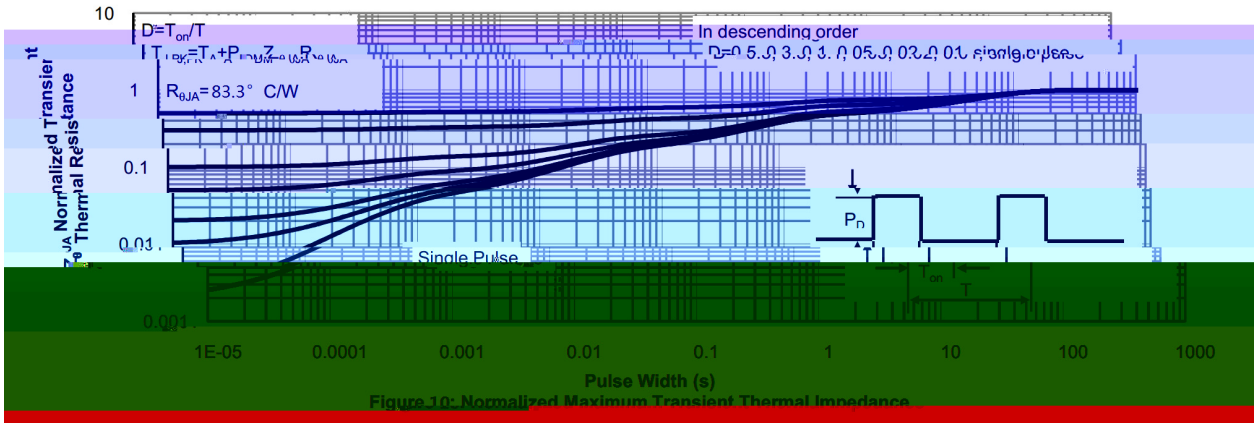
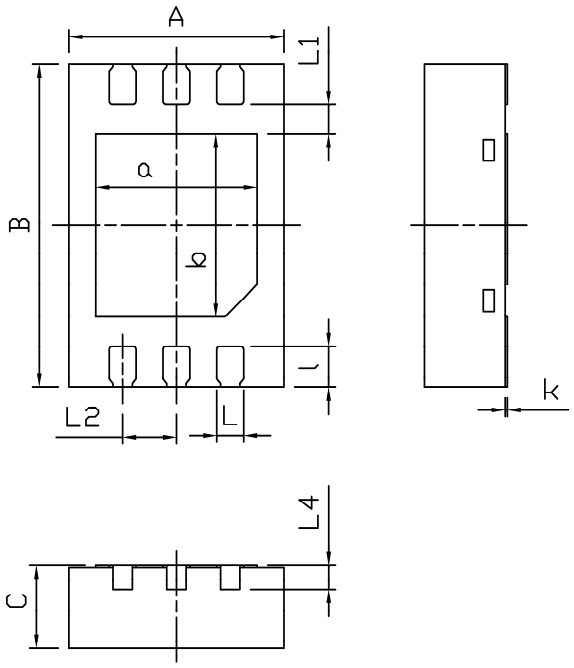


Figure 10: Normalized Maximum Transient Thermal Impedance

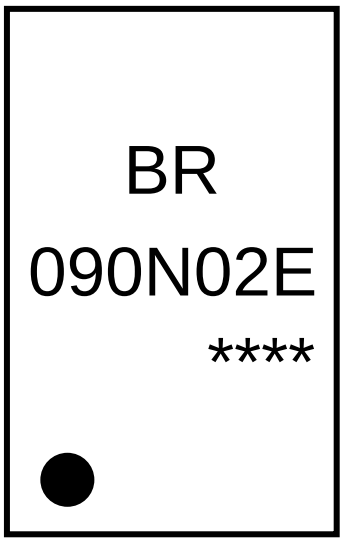
DFN3X2-6L

Unit:mm



Dimensions In Millimeters			
Symbol	MIN	TYP	MAX
A	1.90	2.00	2.10
B	2.90	3.00	3.10
C	0.70	0.75	0.85
L	0.20	0.25	0.30
L1	–	0.275	–
L2	–	0.50	–
L4	0.153	0.203	0.253
a	1.40	1.50	1.60
b	1.60	1.70	1.80
k	0.00	–	0.05
l	0.275	0.375	0.475

Rev.00 202311



BR

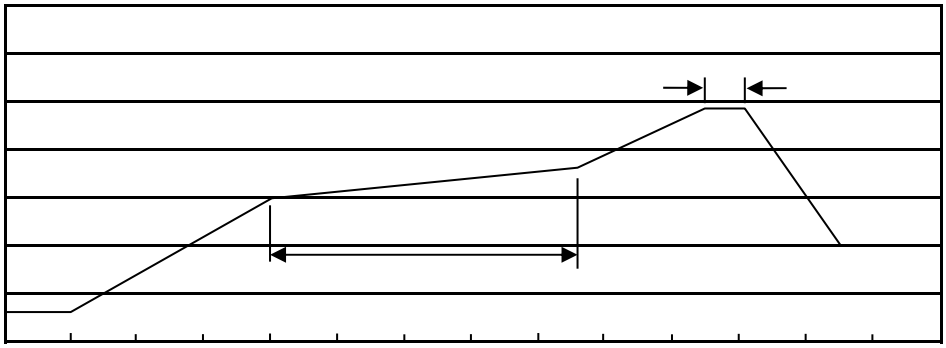
090N02E

****

Note:

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

Temperature Profile for IR Reflow Soldering(Pb-Free)



		Note:
1	150 180 60 90sec;	1.Preheating:150~180 , Time:60~90sec.
2	245±5 5±0.5sec;	2.Peak Temp.:245±5 , Duration:5±0.5sec.
3	2 10 /sec.	3. Cooling Speed: 2~10 /sec.

260±5	10±1 sec.	Temp.:260±5℃	Time:10±1 sec

/ REEL

Package Type	Units					Dimension		(unit mm³)
	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