/ Descriptions

DFN3×2-6L N

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

/ Features

$V_{DS(V)}$=20V I_D=12.3A

$R_{DS(ON)}$@4.5V≤7.2mΩ(Typ.6.6mR)

$R_{DS(ON)}$@3.8V≤8.2mΩ(Typ.6.9mR)

$R_{DS(ON)}$@2.5V≤10.5mΩ(Typ.8.1mR)

2KV

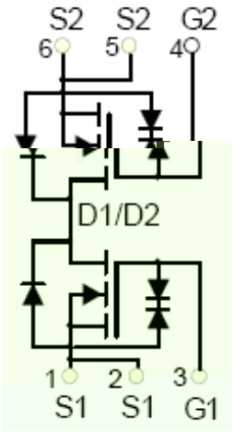
ESD protected up to 2KV,HF Product.

/ Applications

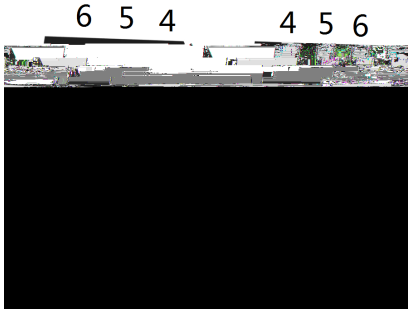
POL

Handheld Instruments,POL Applications,Battery Protection Applications.

/ Equivalent Circuit



/ Pinning



/ Marking

See Marking Instructions.

/ Absolute Maximum Ratings(Ta=25)

Parameter		Symbol	Rating	Unit
Drain-Source Voltage		V_{DSS}	20	V
Drain Current		I_D	12.3	A
Drain Current - Pulsed		I_{DM}	62	A
Gate-Source Voltage		V_{GSS}	±10	V
Power Dissipation		P_D	1.7	W
Operating and Storage Temperature Range		T_J, T_{stg}	-55 to 150	
Junction-to-Ambient	Steady-State	$R_{\theta JA}$	73.5	/W

/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	BV_{DSS}	V_{GS}=0V I_D=250μA	20	21		V
Zero Gate Voltage Drain Current	I_{DSS}	V_{DS}=20V V_{GS}=0V			1.0	μA
Gate-Body leakage current	I_{GSS}	V_{GS}=±10V V_{DS}=0V			± 10	μA
Gate Threshold Voltage	$V_{GS(th)}$	V_{DS}=V_{GS} I_D=250μA	0.5	0.7	1.0	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	V_{GS}=4.5V I_D=3A		6.6	7.2	mΩ
		V_{GS}=4.0V I_D=3A		6.8	7.5	mΩ
		V_{GS}=3.8V I_D=3A		6.9	8.2	mΩ
		V_{GS}=3.1V I_D=3A		7.3	9.2	mΩ
		V_{GS}=2.5V I_D=3A		8.1	10.5	mΩ
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=1.35Ω R_{GEN}=3Ω		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

/ Electrical Characteristic Curve

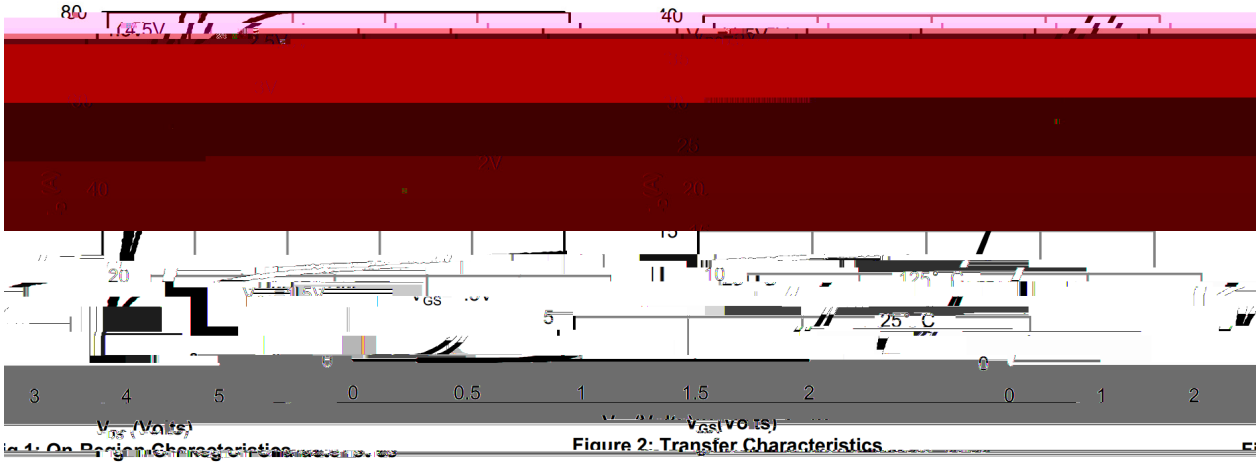
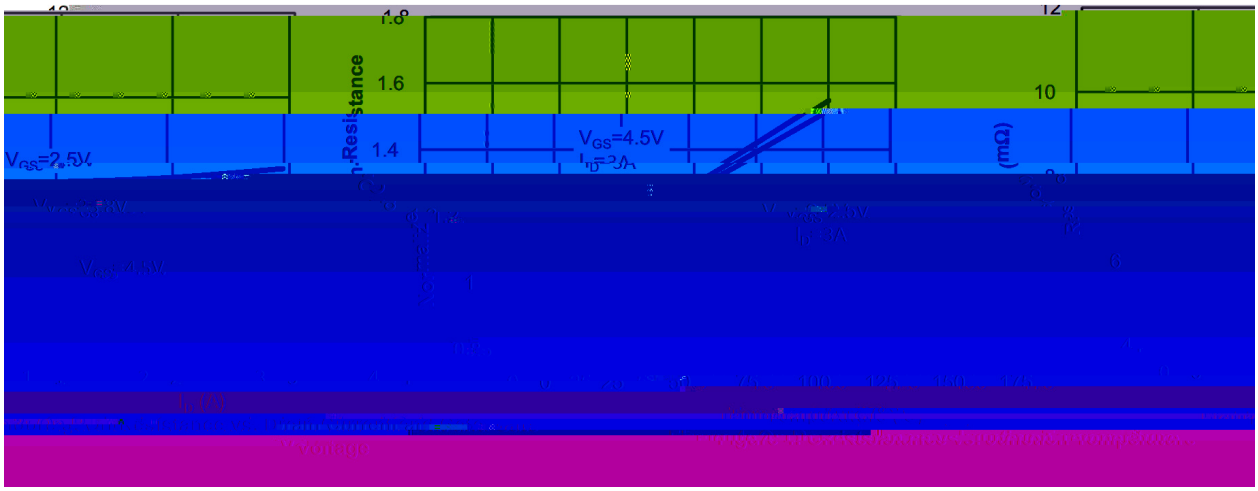
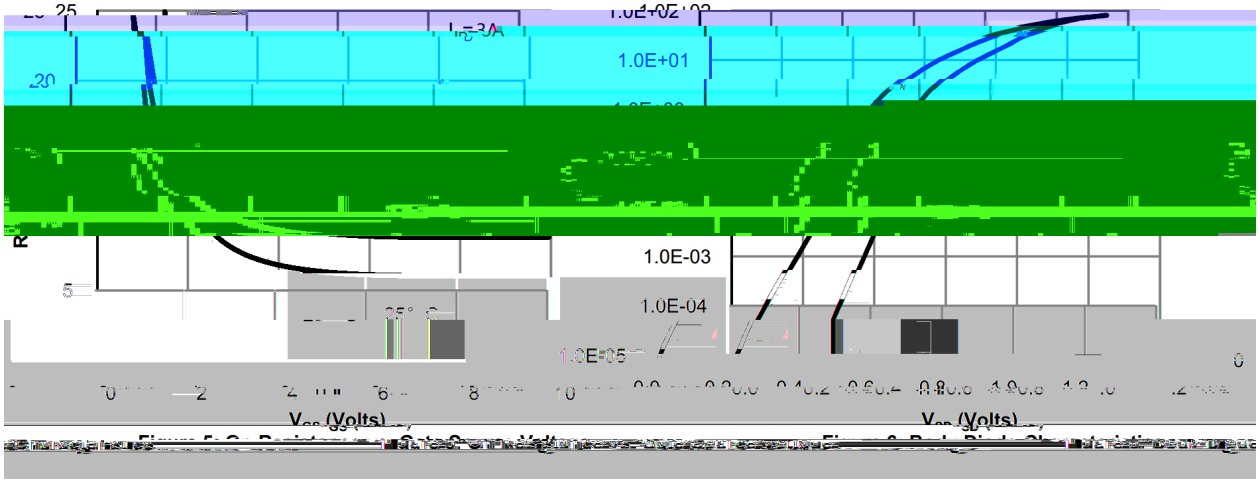
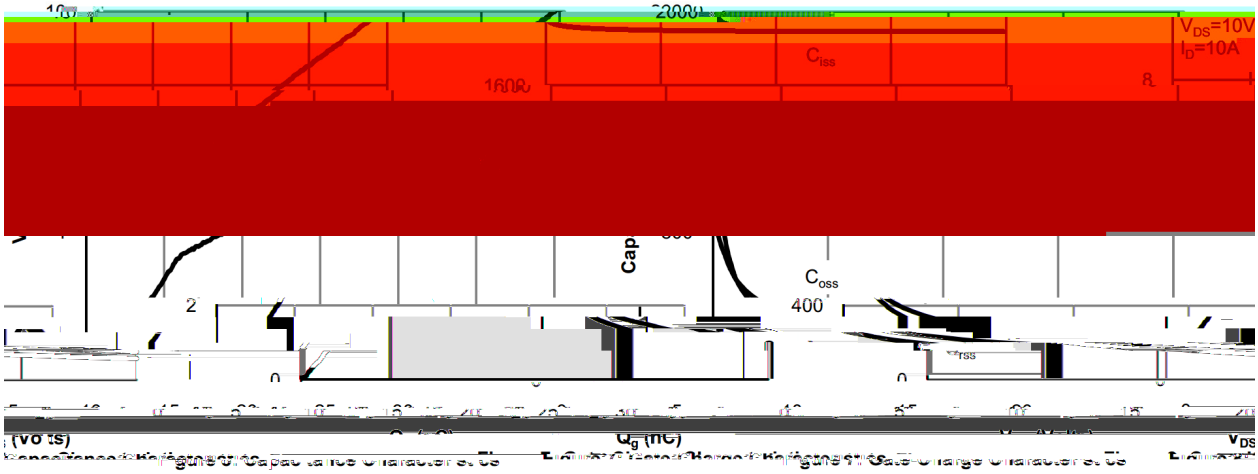


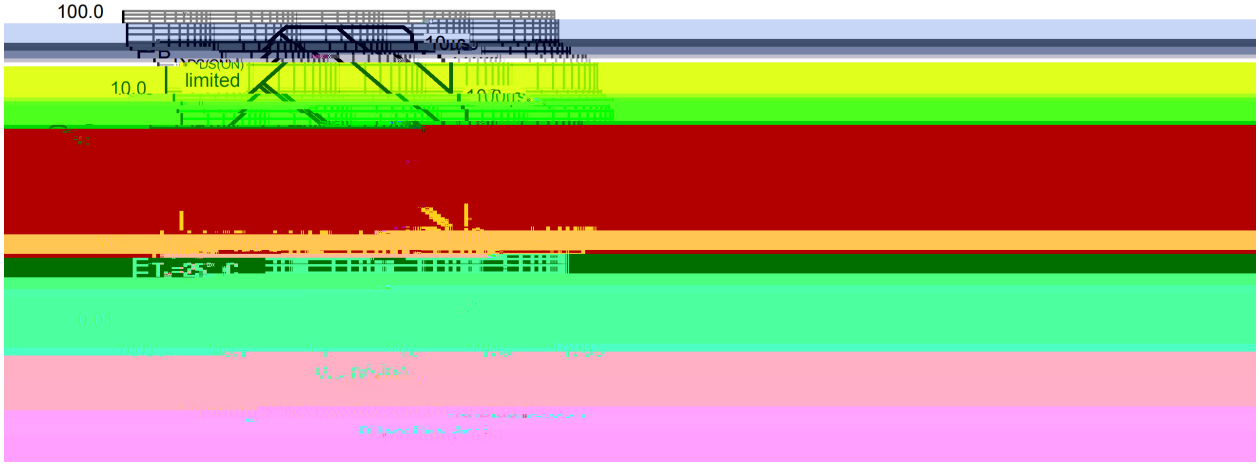
Figure 2: Transfer Characteristics

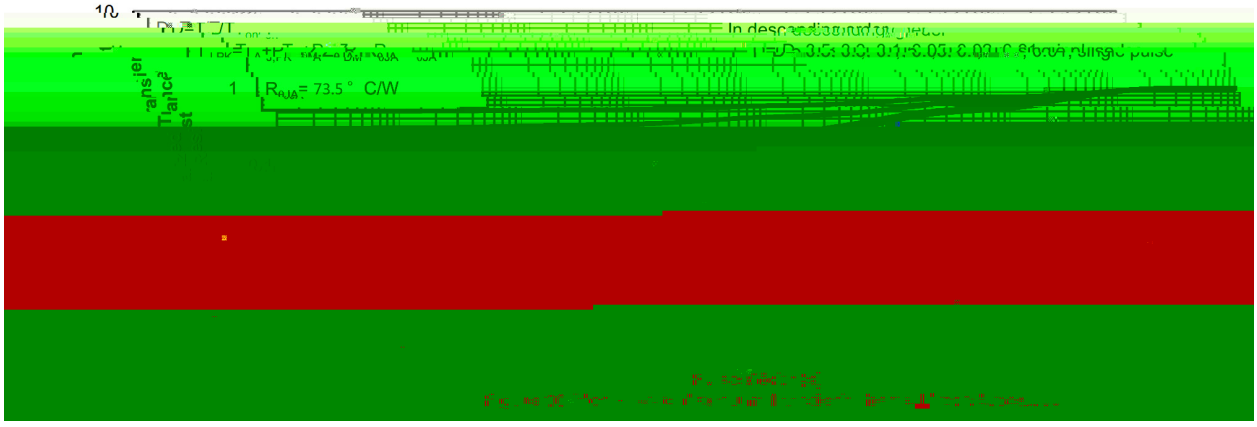




/ Electrical Characteristic Curve

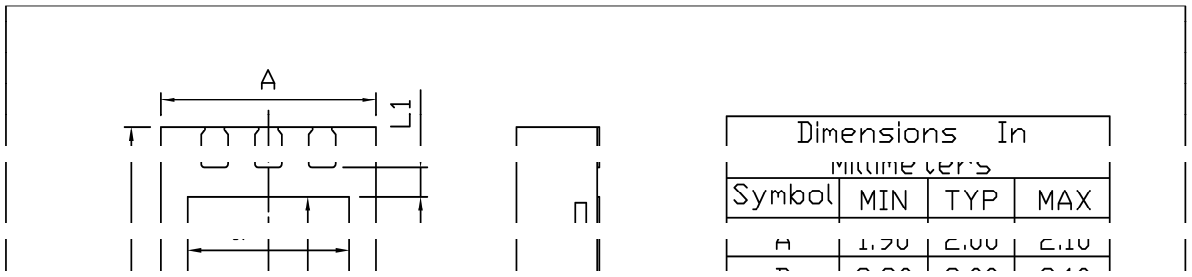






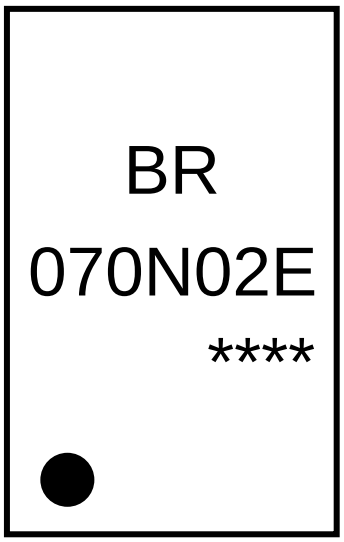
/ Package Dimensions

DFN3X2-6L Unit:mm



Dimensions In Millimeters			
Symbol	MIN	TYP	MAX
A	1.90	2.00	2.10

/ Marking Instructions



BR

070N02E

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Note:

BR:	Company Code
070N02E:	Product Type Code
****:	Lot No. Code, code change with Lot No