

/ Descriptions

DFN3×2-6L N

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

/ Features $V_{DS(V)}=20V$ $I_D=12.3A$ $R_{DS(ON)}@4.5V \leq 7.2m\Omega$ (Typ.6.6mR) $R_{DS(ON)}@3.8V \leq 8.2m\Omega$ (Typ.6.9mR) $R_{DS(ON)}@2.5V \leq 10.5m\Omega$ (Typ.8.1mR)

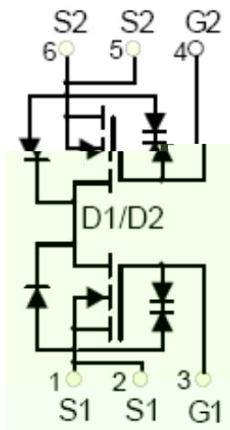
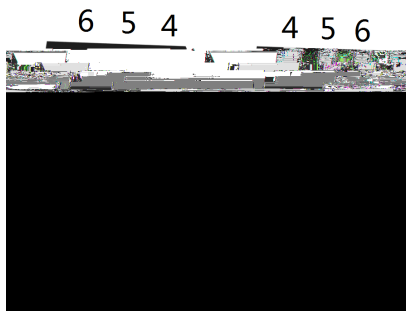
2KV

ESD protected up to 2KV,HF Product.

/ Applications

POL

Handheld Instruments,POL Applications,Battery Protection Applications.

/ Equivalent Circuit**/ Pinning****/ Marking**

See Marking Instructions.

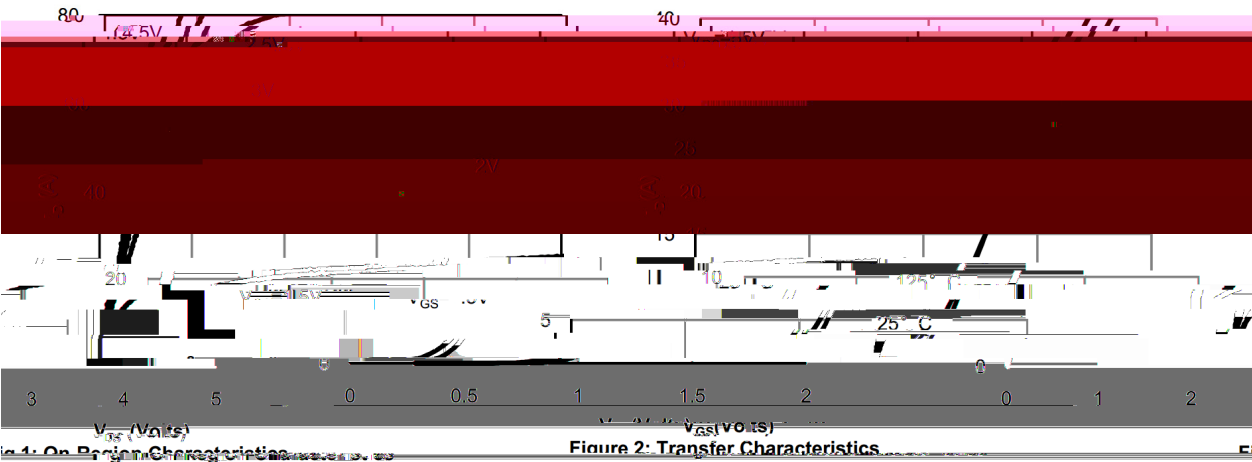
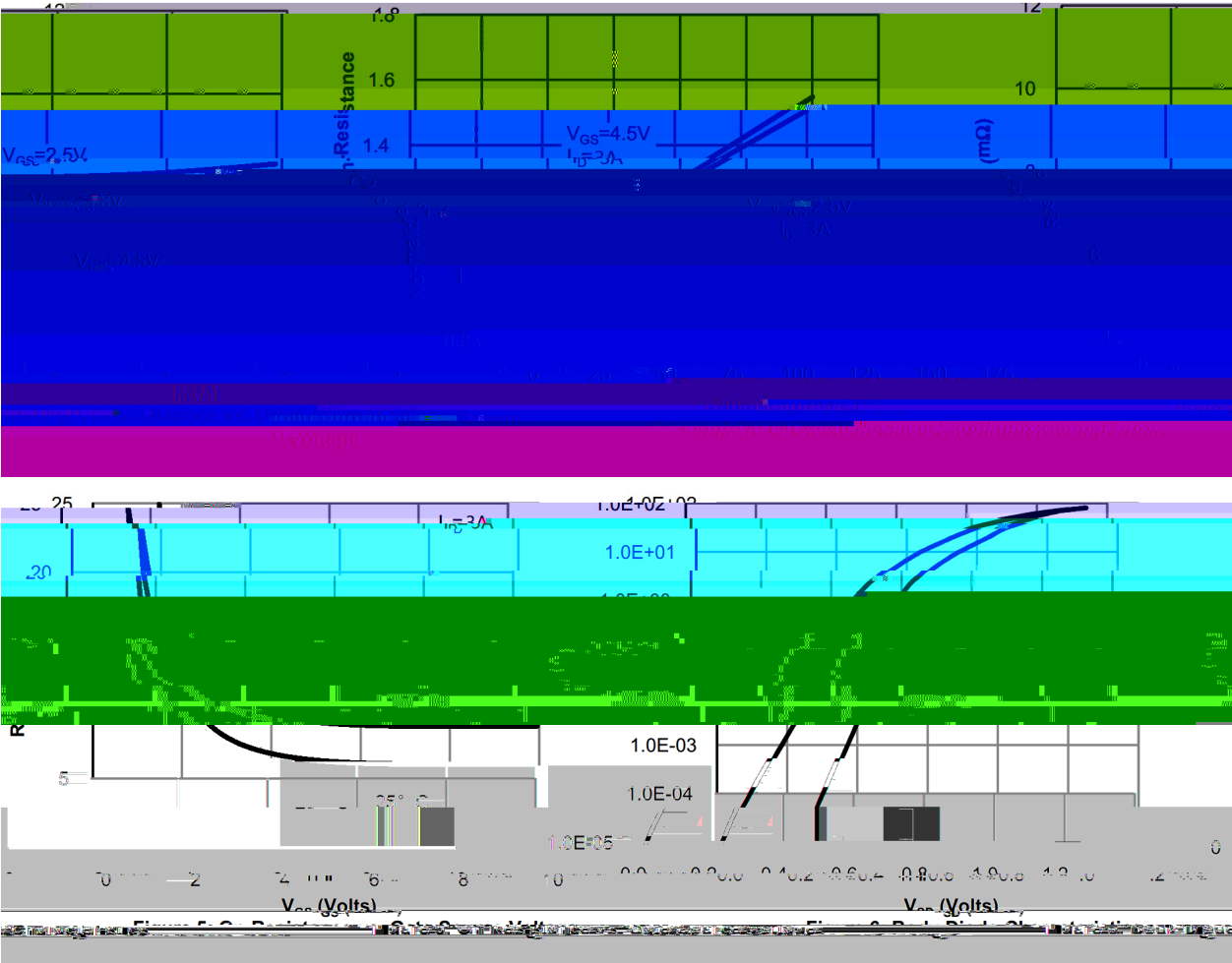
/ Absolute Maximum Ratings(Ta=25)

Parameter		Symbol	Rating	Unit
Drain-Source Voltage		V_{DS}	20	V
Drain Current		I_D	12.3	A
Drain Current - Pulsed		I_{DM}	62	A
Gate-Source Voltage		V_{GS}	± 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

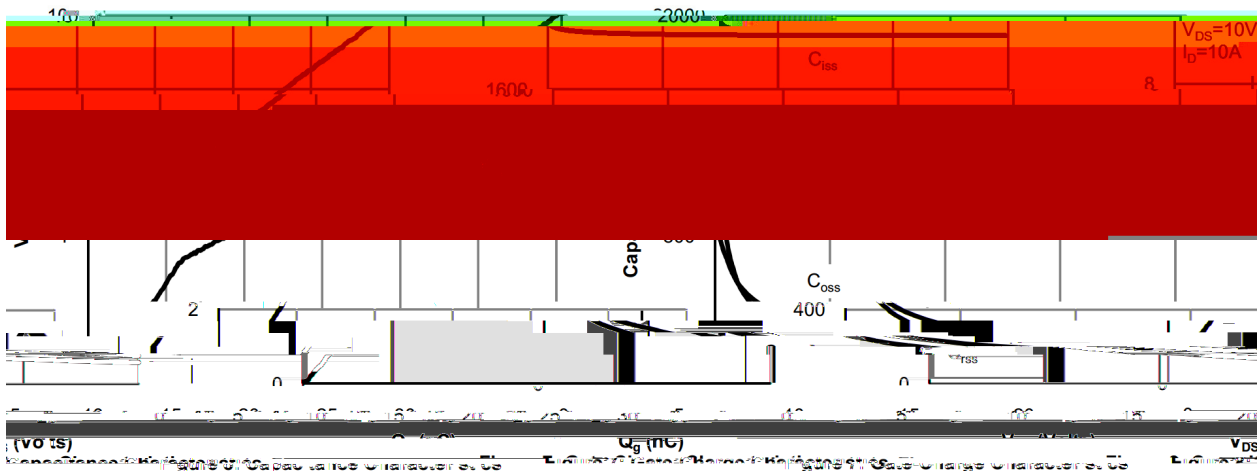
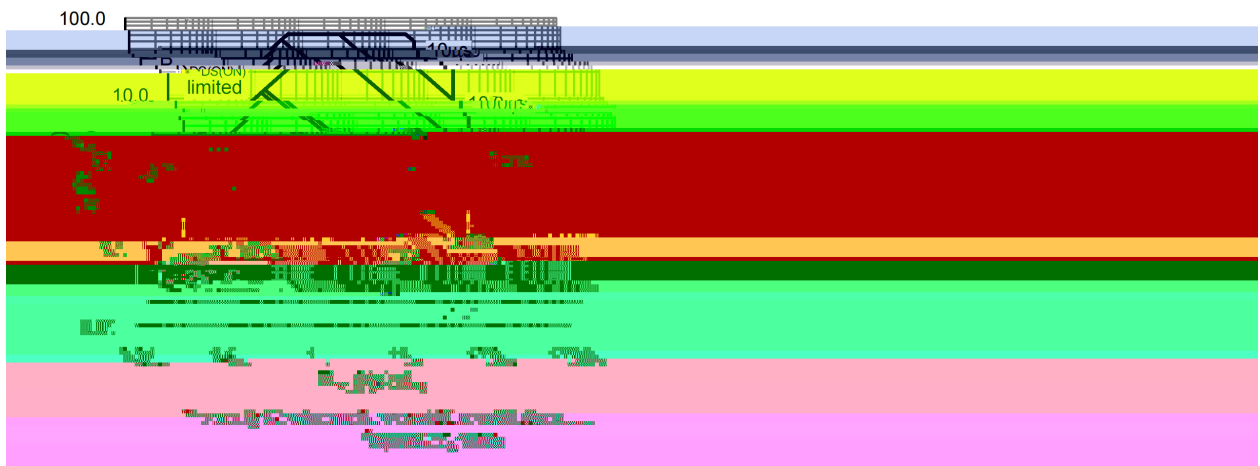
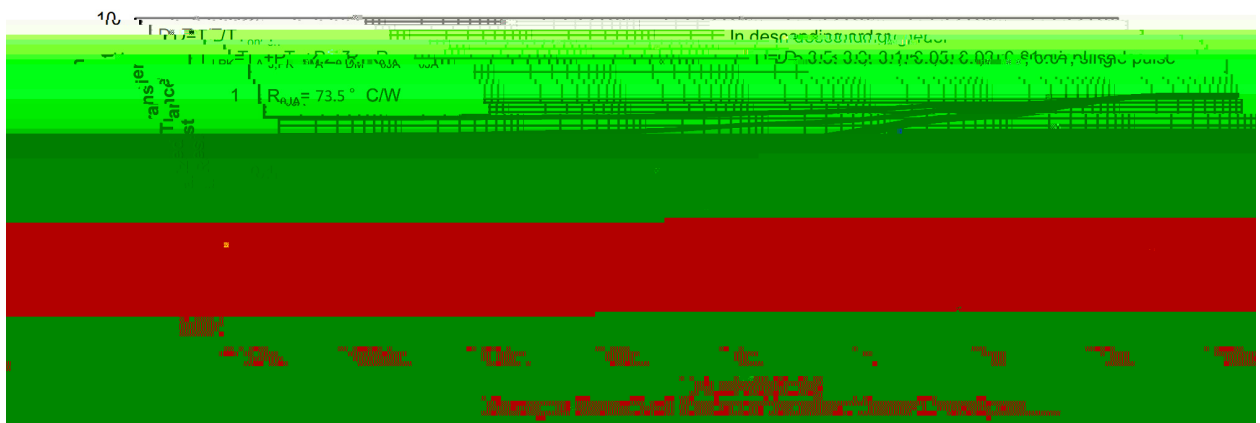
/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions		Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	BV_{DS}	$V_{GS}=0V$	$I_D=250\mu A$	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}	$V_{GS}=\pm 10V$	$V_{DS}=0V$			± 10	μA
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS}=V_{GS}$	$I_D=250\mu A$	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	m Ω
		$V_{GS}=4.0V$	$I_D=3A$		6.8	7.5	m Ω
		$V_{GS}=3.8V$	$I_D=3A$		6.9	8.2	m Ω
		$V_{GS}=3.1V$	$I_D=3A$		7.3	9.2	m Ω
		$V_{GS}=2.5V$	$I_D=3A$		8.1	10.5	m Ω
Diode Forward Voltage	V_{SD}	$V_{GS}=0V$	$I_S=1.0A$			1.2	V
Input Capacitance	C_{iss}	$V_{DS}=10V$ $f=1.0MHz$	$V_{GS}=0V$		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	$t_{d(on)}$	$V_{DS}=10V$ $R_L=1.35\Omega$	$V_{GS}=5.0V$ $R_{GEN}=3\Omega$		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

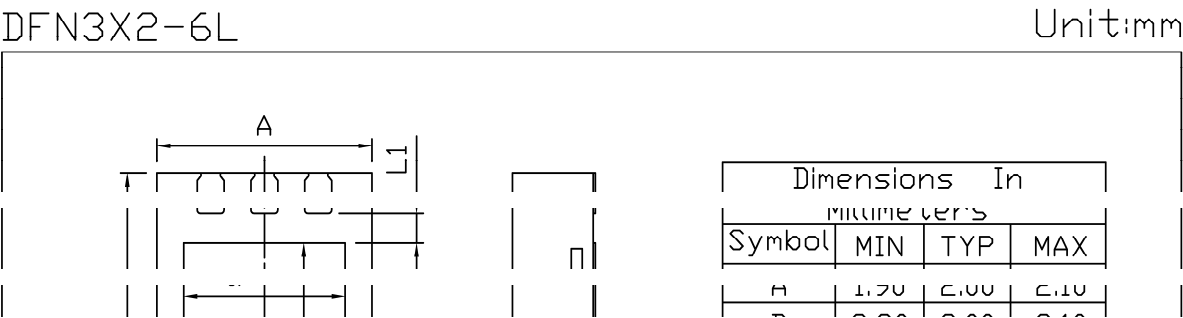
/ Electrical Characteristic Curve



/ Electrical Characteristic Curve



/ Package Dimensions





/ Marking Instructions



BR

070N02E

Note:

BR: Company Code

070N02E: Product Type Code

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

