ABSOLUTE MAXIMUM RATINGS

Drain-Source voltage, V_{DS} ____ 10.6V
Gate-Source voltage, V_{GS} ____ 10.6V
Power dissipation ____ 500 mW
Operating temperature range PA, SA, PC, SC package ____ 0°C to +70°C
Storage temperature range ____ -65°C to +150°C
Lead temperature, 10 seconds ____ +260°C

OPERATING ELECTRICAL CHARACTERISTICS

V+ = +5V (or open) V- = GND T_A = 25°C unless otherwise specified

CAUTION: ESD Sensitive Device. Use static control procedures in ESD controlled environment.

Parameter	Symbol	ALD110802 / ALD110902			Unit	Test Conditions
		Min	Typ	Max		
Gate Threshold Voltage	$V_{GS(th)}$	0.18	0.20	0.22	V	I_{DS} =1μA V_{DS} = 0.1V
Offset Voltage $V_{GS(th)1}$-$V_{GS(th)2}$	V_{OS}		2	10	mV	
Offset VoltageTempco	TC ΔV_{OS}		5		μV/ °C	V_{DS1}= V_{DS2}
GateThreshold Voltage Tempco	TC$\Delta V_{GS(th)}$		-1.7 0.0 +1.6		mV/ °C	I_D = 1μA I_D = 20μA, V_{DS} = 0.1V I_D = 40μA
On Drain Current	$I_{DS\ (ON)}$		12.0 3.0		mA	V_{GS} = + 9.7V V_{GS} = + 4.2V V_{DS} = + 5V
Forward Transconductance	G_{FS}		1.4		mmho	V_{GS} = +4.2V V_{DS} = + 9.2V
Transconductance Mismatch	ΔG_{FS}		1.8		%	
Output Conductance	G_{OS}		68		μmho	V_{GS} = +4.2V V_{DS} = +9.2V
Drain Source On Resistance	$R_{DS\ (ON)}$		500		Ω	V_{DS} = 0.1V V_{GS} = +4.2V
Drain Source On Resistance Mismatch	$\Delta R_{DS\ (ON)}$		0.5		%	
Drain Source Breakdown Voltage	BV_{DSX}		10		V	I_{DS} = 1.0μA V_{GS} = -0.8V
Drain Source Leakage Current[1]	$I_{DS\ (OFF)}$		10	100 4	pA nA	V_{GS} = -0.8V V_{DS} =10V, T_A = 125°C
Gate Leakage Current[1]	I_{GSS}		3	30 1	pA nA	V_{DS} = 0V V_{GS} = 10V T_A =125°C
Input Capacitance	C_{ISS}		2.5		pF	
Transfer Reverse Capacitance	C_{RSS}		0.1		pF	
Turn-on Delay Time	t_{on}		10		ns	V^+ = 5V R_L= 5KΩ
Turn-off Delay Time	t_{off}		10		ns	V^+ = 5V R_L= 5KΩ
Crosstalk			60		dB	f = 100KHz

Notes: [1] Consists of junction leakage currents