

ELECTRICAL SPECIFICATIONS

Typical @ 25°C unless otherwise noted

Parameter	Symbol	Min.	Max.	Unit
Gate-Source Breakdown Voltage $V_{DS} = 0Vdc, I_G = 1.0Adc$	$V_{(BR)GSS}$	-40		Vdc
Gate-Source "Off" State Voltage $V_{DS} = 15Vdc, I_D = 0.5nAdc$	$V_{GS(off)}$	-4	-10	Vdc
2N4856		-2	-6	Vdc
2N4857		-0.8	-4	Vdc
2N4858				
Gate Reverse Current $V_{DS} = 0Vdc, V_{GS} = -20Vdc$ $V_{DS} = 0Vdc, V_{GS} = -15Vdc$	I_{GSS}		-0.25 -0.25	nA nA
Drain Current $V_{DS} = 15Vdc, V_{GS} = -10Vdc$ $V_{DS} = 15Vdc, V_{GS} = 0Vdc$	$I_{D(off)}$	50	0.25	nA
2N4856		20	175	mA
2N4857		8	100	mA
2N4858			80	mA
Static Drain - Source "On" State Resistance $V_{GS} = 0Vdc, I_D = 1mAdc$	$R_{DS(on)}$		25	Ω
2N4856			40	Ω
2N4857			60	Ω
2N4858				
Drain Source "On" State Voltage $V_{GS} = 0Vdc, I_D = 20mAdc$ $V_{GS} = 0Vdc, I_D = 10mAdc$ $V_{GS} = 0Vdc, I_D = 5mAdc$	$V_{DS(on)}$		0.75	Vdc
2N4856			0.5	Vdc
2N4857			0.5	Vdc
2N4858				
Small Signal, Common Source Reverse Transfer Capacitance $V_{GS} = -10Vdc, V_{DS}, V_D = 0Vdc, f = 1.0MHz$ $C_1 = 0.1\mu F, L_1 = L_2 \geq 500\mu H$	C_{rss}		8	pF
Small Signal, Common Source Short-Circuit Input Capacitance $V_{GS} = -10Vdc, V_{DS}, V_D = 0Vdc, f = 1.0MHz$ $C_1 = 0.1\mu F, C_2 = 20.1m$ $F_{L1} = L_2 \geq 500\mu H$	C_{iss}		8	pF
Turn On Delay Time	$t_{D(on)}$	2N4856	6	nS
		2N4857	6	nS
		2N4858	10	nS
Rise Time	t_r	2N4856	3	nS
		2N4857	4	nS
		2N4858	10	nS
Turn Off Delay Time	$t_{d(off)}$	2N4856	25	nS
		2N4857	50	nS
		2N4858	100	nS