

ABSOLUTE MAXIMUM RATING (T case = 25°C unless otherwise stated)

	(EC-20)16	(EC-20)20
V _{DSX} Drain - Source Voltage	160V	200V
V _{GSS} Gate - Source Voltage	±14V	
I _D Continuous Drain Current	16A	
I _{D(PK)} Body Drain Diode	16A	
P _D Total Power Dissipation @ (T case = 25°C)	250W	
T _{stg} Storage Temperature Range	-55 to 150°C	
T _j Maximum Operating Junction Temperature	150°C	
R _{θJC} Thermal Resistance Junction - case	0.5°C/W	

STATIC CHARACTERISTICS (T case = 25°C unless otherwise stated)

Characteristic	Test Conditions	MIN	TYP	MAX	UNIT
B V _{DSX} Drain - Source Breakdown Voltage	V _{GS} = -10V	(EC-20)16	160		V
	I _D = 10mA	(EC-20)20	200		V
B V _{GSS} Gate - Source Breakdown Voltage	V _{DS} = 0	IG = ±100uA	±14		V
V _{GS(OFF)} Gate-Source Cut-Off Voltage	V _{DS} = 10V	I _D = 100mA	0.10	1.5	V
V _{DS(SAT)*} Drain - Source Saturation Voltage	V _{GD} = 0	I _D = 16A		12	V
I _{DSX} Drain - Source Cut - Off Current	V _{GS} = -10V	V _{DS} = 160V		10	mA
		(EC-20)16			
		V _{DS} = 200V		10	
		(EC-20)20			
Y _{fs*} Forward Transfer Admittance	V _{DS} = 10V	I _D = 3A	1.4	4	S

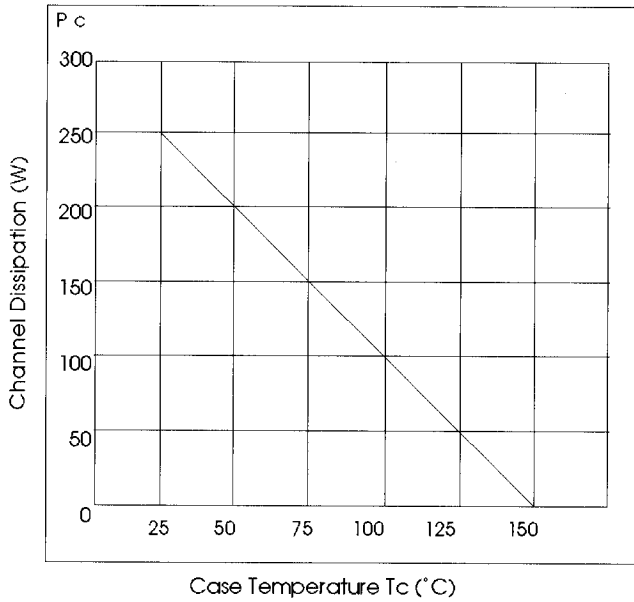
DYNAMIC CHARACTERISTICS (T case = 25°C unless otherwise stated)

Characteristic	Test Conditions	TYPICAL		UNIT
		N-Channel	P-Channel	
C _{iss} Input Capacitance	V _{DS} = 10V f = 1 MHz	950	1900	pF
C _{oss} Output Capacitance		550	900	
C _{rss} Reverse Transfer Capacitance		20	60	
t _{on} Turn-on Time	V _{DS} = 20V I _D = 7A	160	150	ns
t _{off} Turn-off Time		80	110	

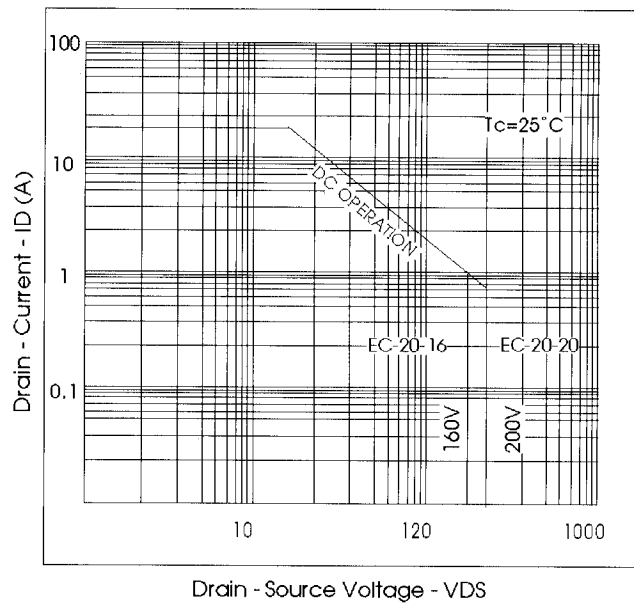
*Pulse Test: Pulse width = 300uS, Duty Cycle ≤ 2%

Typical Characteristics for 250W Devices.

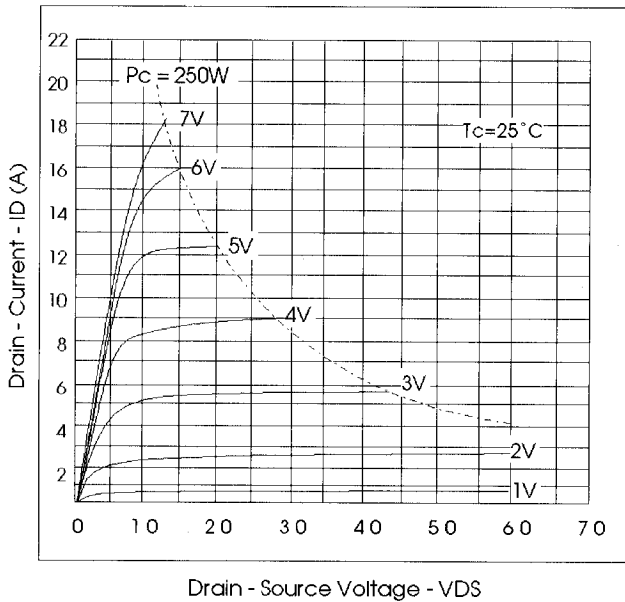
Power vs. Temperature Derating



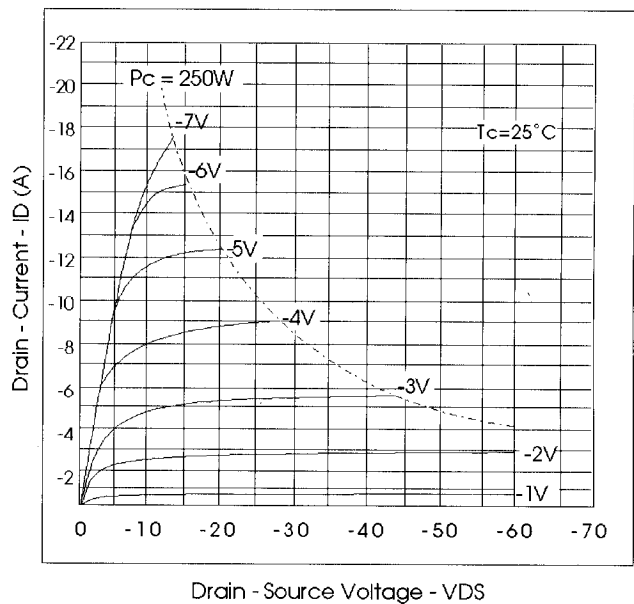
Maximum Safe Operating Area



Typical Output (N-Channel)

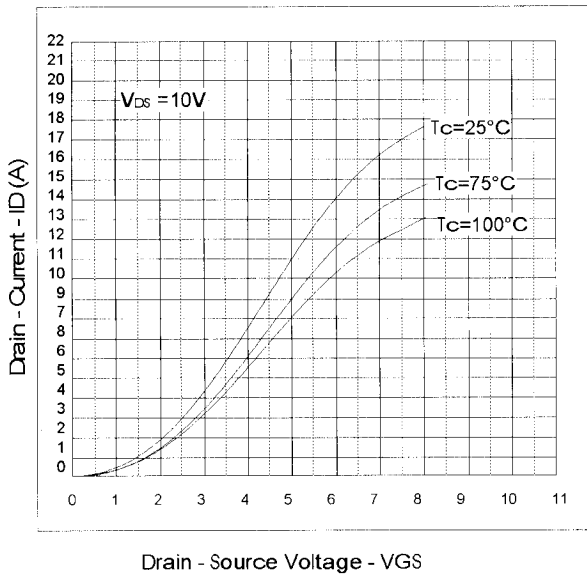


Typical Output (P-Channel)

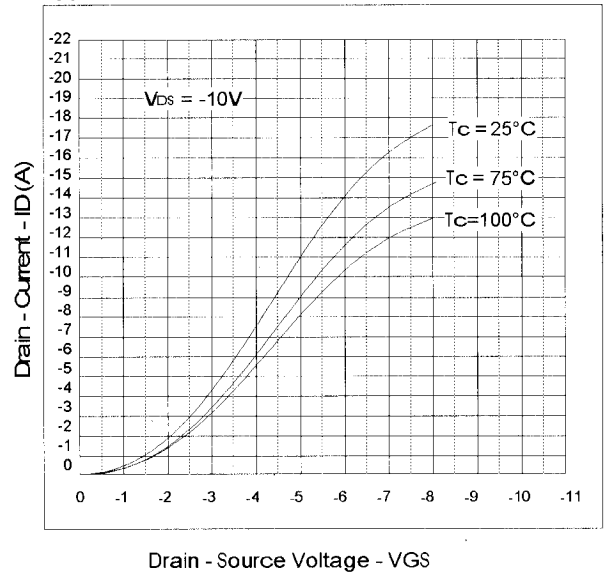


Typical Characteristics for 250W Devices (cont.)

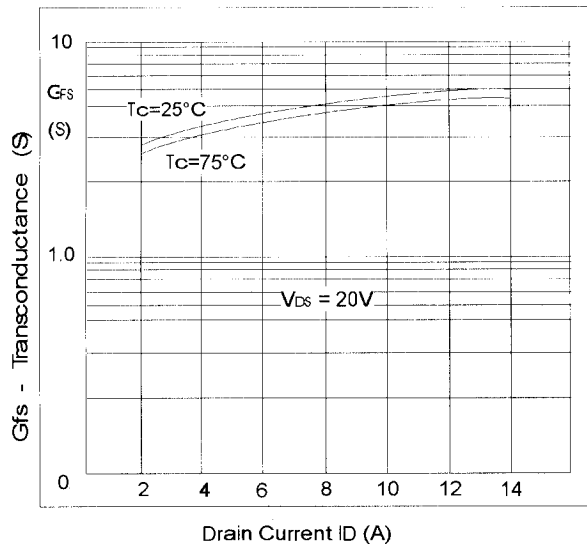
Typical Transfer Characteristics (N-Channel)



Typical Transfer Characteristics (P-Channel)



Forward Transfer Admittance (N-Channel)



Forward Transfer Admittance (P-Channel)

