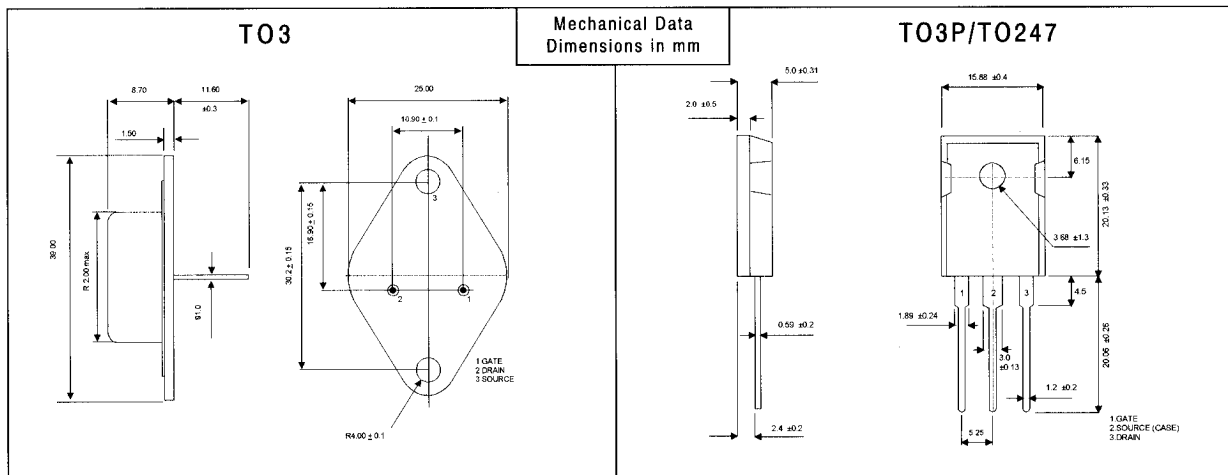


**HIGH POWER 125W  
HIGH QUALITY AUDIO AMPLIFIER APPLICATIONS**



ABSOLUTE MAXIMUM RATING (T case = 25°C unless otherwise stated)		(EC-10)16	(EC-10)20
V <sub>DSX</sub>	Drain - Source Voltage	160V	200V
V <sub>GSS</sub>	Gate - Source Voltage	±14V	
I <sub>D</sub>	Continuous Drain Current	8 A	
I <sub>D(PK)</sub>	Body Drain Diode	8 A	
P <sub>D</sub>	Total Power Dissipation @ (T case = 25°C)	125W	
T <sub>stg</sub>	Storage Temperature Range	-55 to 150°C	
T <sub>j</sub>	Maximum Operating Junction Temperature	150°C	
RθJC	Thermal Resistance Junction - case	1.0°C/W	

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

Characteristic	Test Conditions		MIN	TYP	MAX	UNIT
B V <sub>DSX</sub>	Drain - Source Breakdown Voltage	V <sub>GS</sub> = -10V (EC-10)16	160			V
		ID = 10mA (EC-10)20	200			V
B V <sub>GSS</sub>	Gate - Source Breakdown Voltage	V <sub>DS</sub> = 0 IG = ±100uA	±14			V
V <sub>GS(OFF)</sub>	Gate-Source Cut-Off Voltage	V <sub>DS</sub> = 10V ID = 100mA	0.15		1.5	V
V <sub>DS(SAT)*</sub>	Drain - Source Saturation Voltage	V <sub>GD</sub> = 0 ID = 8A			12	V
I <sub>DSX</sub>	Drain - Source Cut - Off Current	V <sub>GS</sub> = -10V	V <sub>DS</sub> = 160V (EC-10)16		10	mA
			V <sub>DS</sub> = 200V (EC-10)20		10	
Y <sub>fs*</sub>	Forward Transfer Admittance	V <sub>DS</sub> = 10V ID = 3A	0.7		2	S

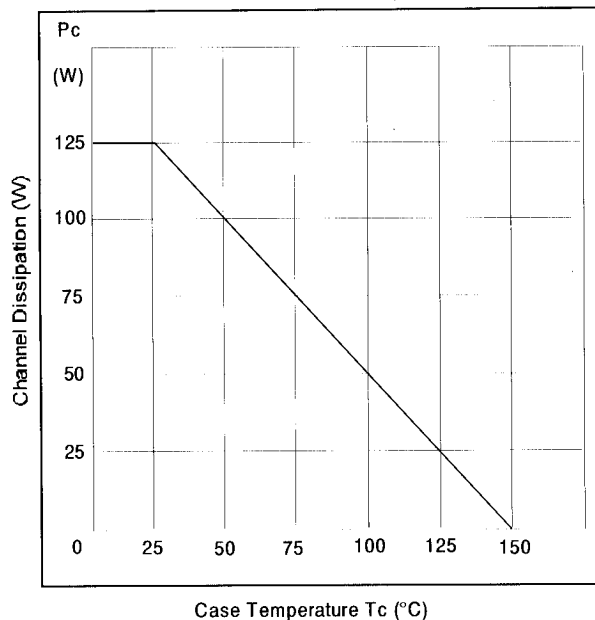
DYNAMIC CHARACTERISTICS (T case = 25°C unless otherwise stated)

Characteristic	Test Conditions	N-Channel	P-Channel	UNIT
C <sub>iss</sub>	V <sub>DS</sub> = 10V f = 1 MHz	500	700	pF
C <sub>oss</sub>		300	300	
C <sub>rss</sub>		10	25	
t <sub>on</sub>	V <sub>DS</sub> = 20V ID = 5A	100	120	ns
t <sub>off</sub>		50	60	

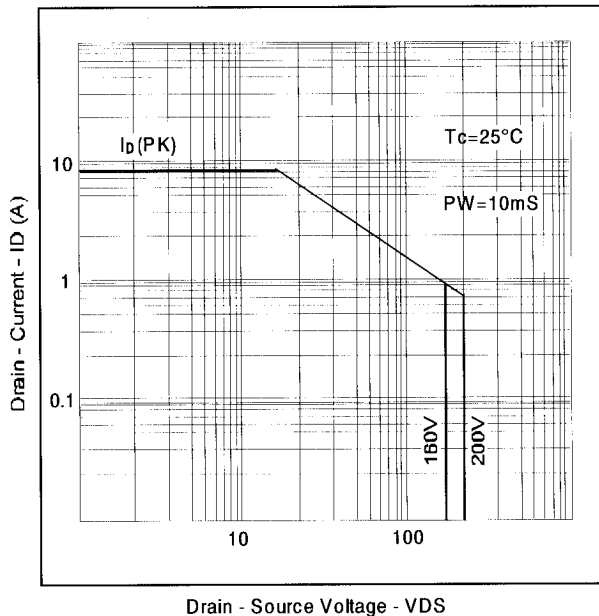
\*Pulse Test: Pulse width = 300uS, Duty Cycle ≤2%

# Typical Characteristics for 125W Devices.

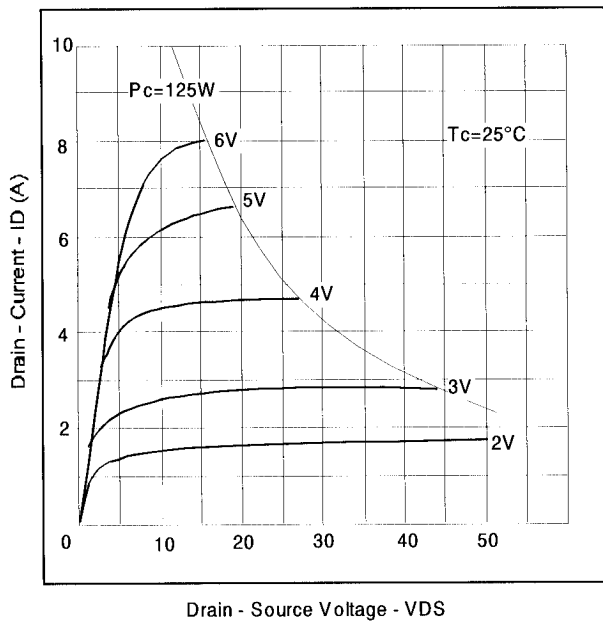
### Power vs. Temperature Derating



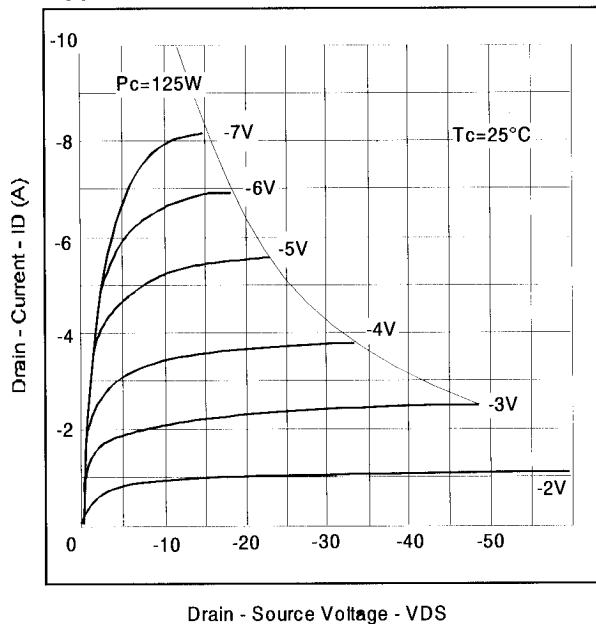
### Maximum Safe Operating Area



### Typical Output (N-Channel)

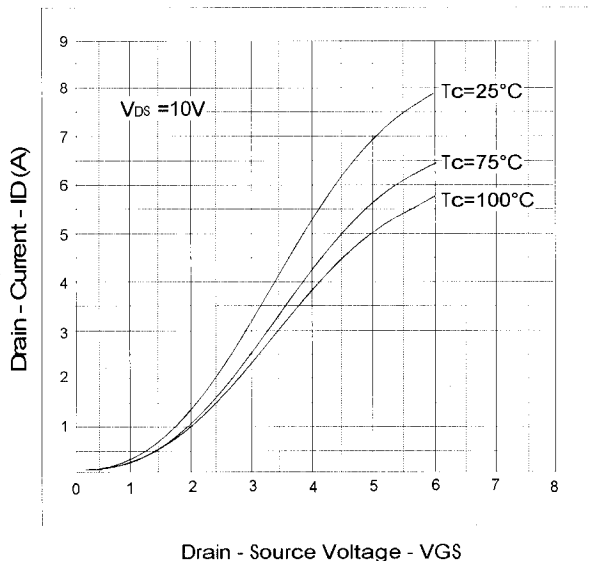


### Typical Output (P-Channel)

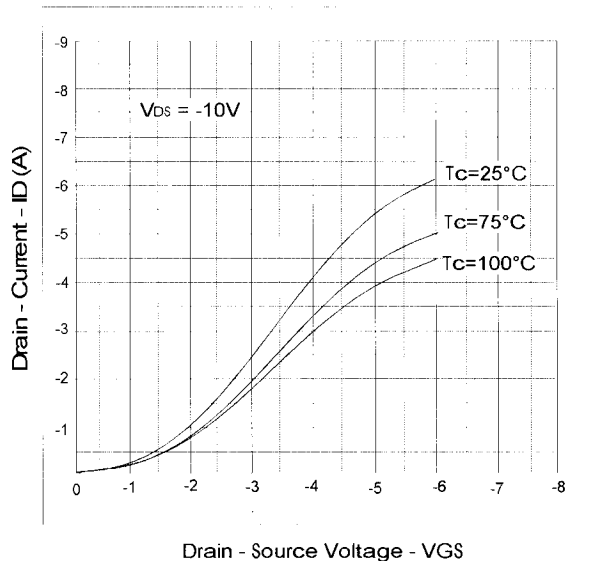


## Typical Characteristics for 125W Devices (cont.)

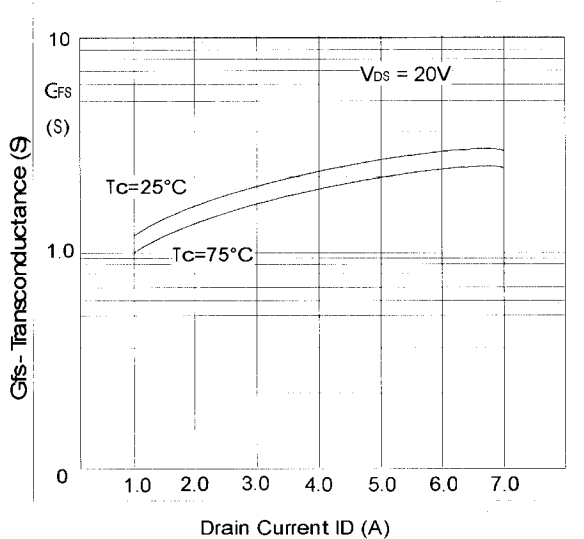
Typical Transfer Characteristics (N-Channel)



Typical Transfer Characteristics (P-Channel)



Forward Transfer Admittance (N-Channel)



Forward Transfer Admittance (P-Channel)

