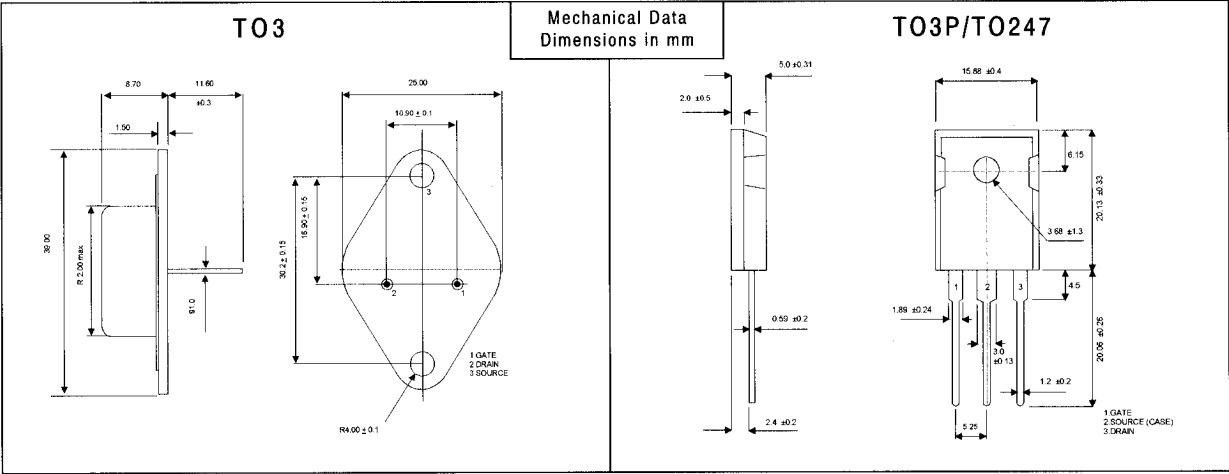


HIGH POWER 125W
HIGH QUALITY AUDIO AMPLIFIER APPLICATIONS



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

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

Characteristic	Test Conditions		MIN	TYP	MAX	UNIT
B V _{DSX} Drain - Source Breakdown Voltage	V _{GS} = -10V ID = 10mA	(EC-10)16	160			V
		(EC-10)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	ID= 100mA	0.15		1.5	V
V _{DS(SAT)*} Drain - Source Saturation Voltage	V _{GD} = 0	ID = 8A			12	V
I _{DSX} Drain - Source Cut - Off Current	V _{GS} =-10V	V _{DS} = 160V (EC-10)16			10	mA
		V _{DS} =200V (EC-10)20			10	
Yfs* Forward Transfer Admittance	V _{DS} = 10V	ID = 3A	0.7		2	S

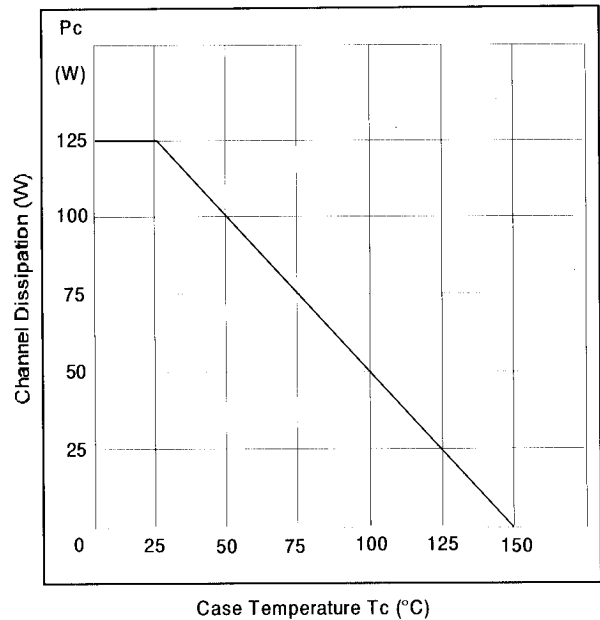
DYNAMIC CHARACTERISTICS (T case = 25°C unless otherwise stated)

Characteristic	Test Conditions	N-Channel	P-Channel	UNIT
C _{iss} Input Capacitance	V _{DS} = 10V f = 1 MHz	500	700	pF
C _{oss} Output Capacitance		300	300	
C _{rss} Reverse Transfer Capacitance		10	25	
t _{on} Turn-on Time	V _{DS} = 20V	100	120	ns
t _{off} Turn-off Time	ID = 5A	50	60	

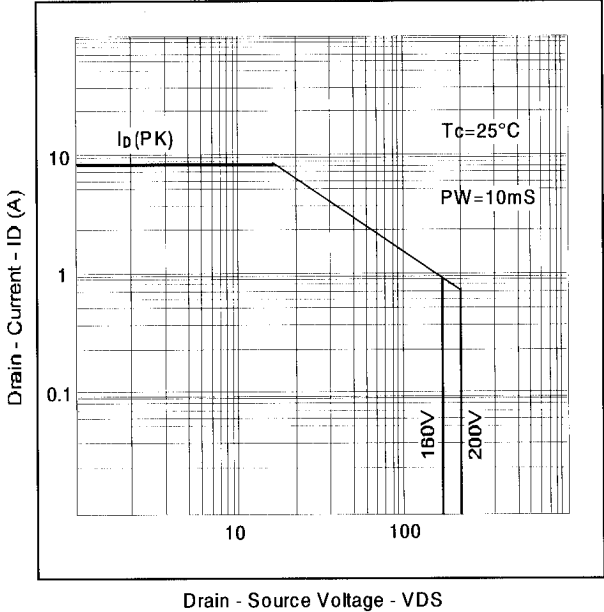
*Pulse Test: Pulse width = 300uS, Duty Cycle ≤2%

Typical Characteristics for 125W Devices.

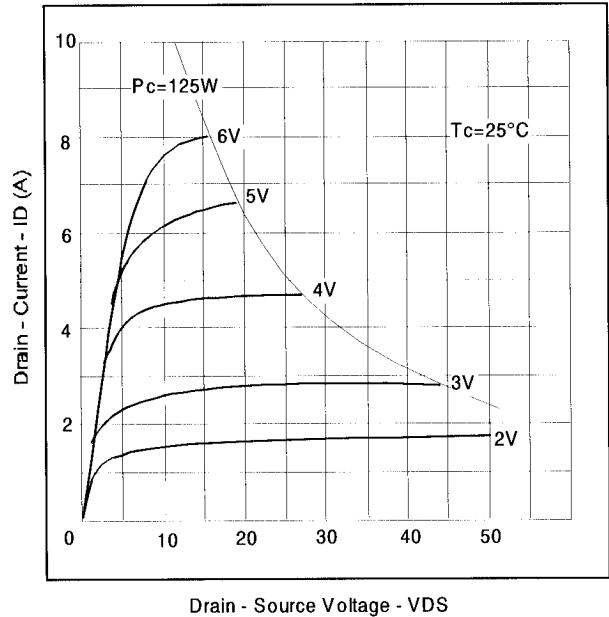
Power vs. Temperature Derating



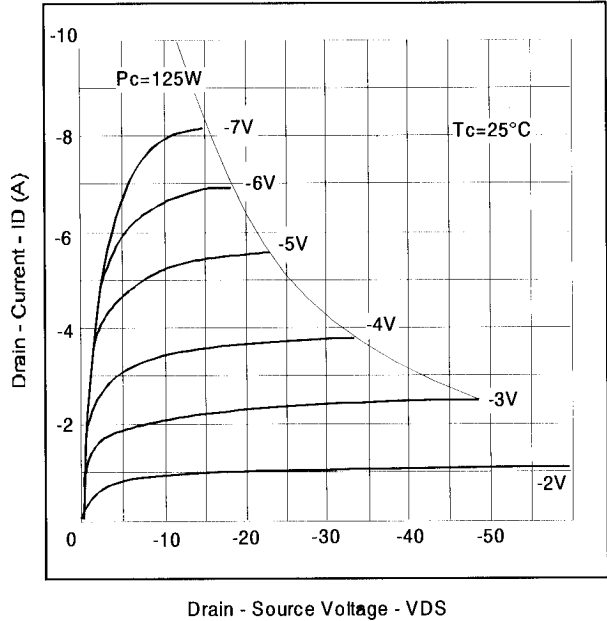
Maximum Safe Operating Area



Typical Output (N-Channel)

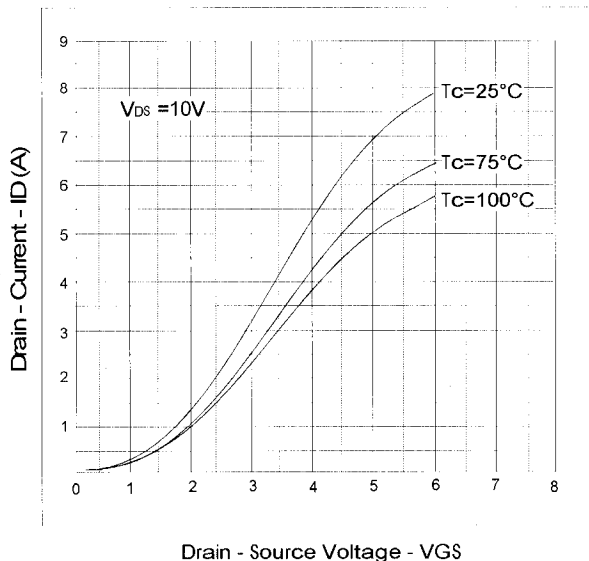


Typical Output (P-Channel)

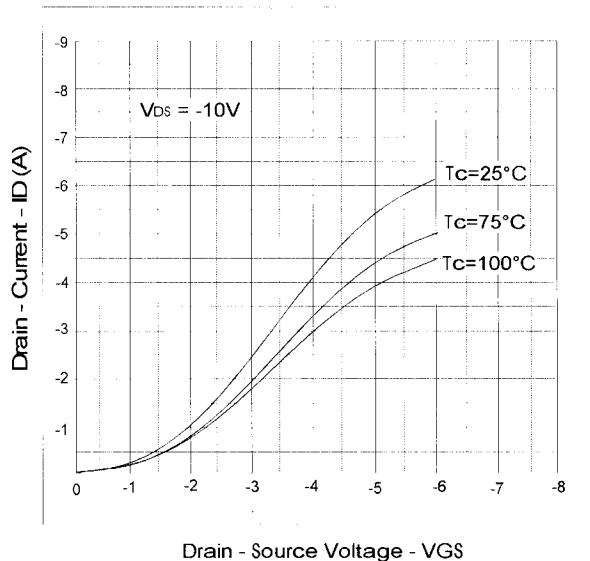


Typical Characteristics for 125W Devices (cont.)

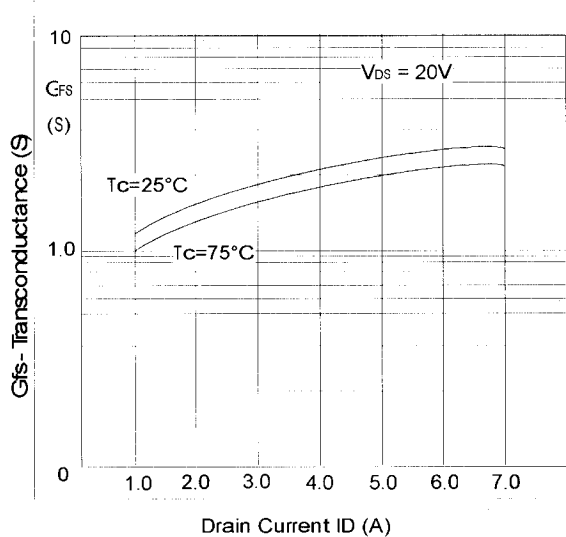
Typical Transfer Characteristics (N-Channel)



Typical Transfer Characteristics (P-Channel)



Forward Transfer Admittance (N-Channel)



Forward Transfer Admittance (P-Channel)

