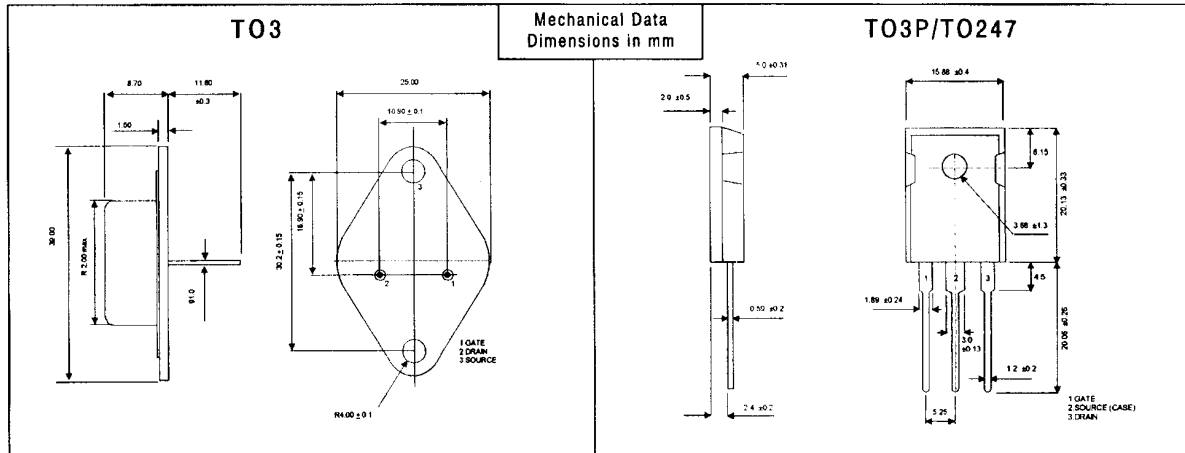


Hitachi / industry part	Replacement	Hitachi / industry part	Replacement
N Channels		P Channels	
2SK133 -TO3 metal	<u>ECF10N16</u>	2SJ48 -TO3 metal	<u>ECF10P16</u>
2SK134 -TO3 metal	<u>ECF10N16</u>	2SJ49 -TO3 metal	<u>ECF10P16</u>
2SK135 -TO3 metal	<u>ECF10N16</u>	2SJ50 -TO3 metal	<u>ECF10P16</u>
2SK175 -TO3 metal	<u>ECF10N20</u>	2SJ55 -TO3 metal	<u>ECF10P20</u>
2SK176 -TO3 metal	<u>ECF10N20</u>	2SJ56 -TO3 metal	<u>ECF10P20</u>
2SK1056 -plastic	<u>ECX10N16</u>	2SJ160 -plastic	<u>ECX10P16</u>
2SK1057 -plastic	<u>ECX10N16</u>	2SJ161 -plastic	<u>ECX10P16</u>
2SK1058 -plastic	<u>ECX10N16</u>	2SJ162 -plastic	<u>ECX10P16</u>
2SK2220 -plastic	<u>ECX10N20</u>	2SJ351 -plastic	<u>ECX10P20</u>
2SK2221 -plastic	<u>ECX10N20</u>	2SJ352 -plastic	<u>ECX10P20</u>

EC-10N16/20**EC-10P16/20**

N AND P CHANNEL LATERAL MOSFETS

**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	
R _{θJC}	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 _{DSX}	Drain - Source Breakdown Voltage V _{GS} = -10V I _D = 10mA	(EC-10)16	160		V
		(EC-10)20	200		V
B _V _{GSS}	Gate - Source Breakdown Voltage V _{DS} = 0 I _G = ±100µA	±14			V
V _{GS(OFF)}	Gate-Source Cut-Off Voltage V _{DS} = 10V I _D = 100mA	0.15		1.5	V
V _{DS(SAT)*}	Drain - Source Saturation Voltage V _{GS} = 0 I _D = 8A			12	V
I _{D(SX)}	Drain - Source Cut - Off Current V _{GS} = -10V	V _{DS} = 160V (EC-10)16		10	mA
		V _{DS} = 200V (EC-10)20		10	
Y _{fs*}	Forward Transfer Admittance V _{DS} = 10V I _D = 3A	0.7		2	S

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

Characteristic	Test Conditions	N-Channel	P-Channel	UNIT
C _{ies}	V _{DS} = 10V f = 1 MHz	500	700	pF
C _{oss}		300	300	
C _{ras}		10	25	
t _{on}	V _{DS} = 20V I _D = 5A	100	120	ns
t _{off}		50	60	

*Pulse Test: Pulse width = 300µs, Duty Cycle < 2%

EC-10N16/20

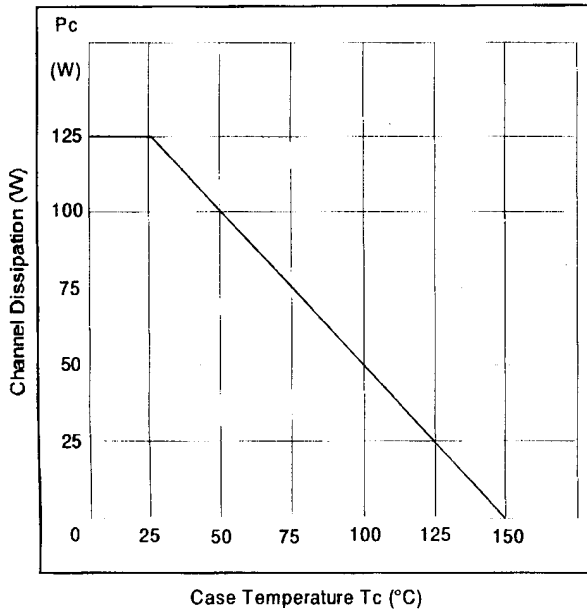
EC-10P16/20

N AND P CHANNEL LATERAL MOSFETS

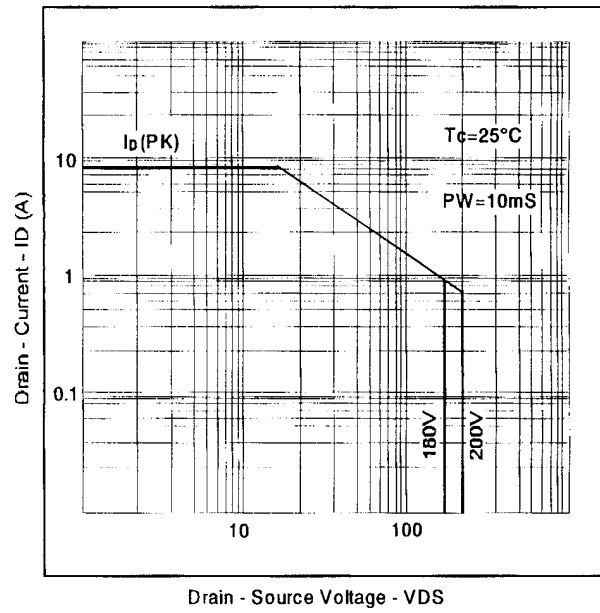
**HIGH POWER 125W
HIGH QUALITY AUDIO AMPLIFIER APPLICATIONS**

Typical Characteristics for 125W Devices.

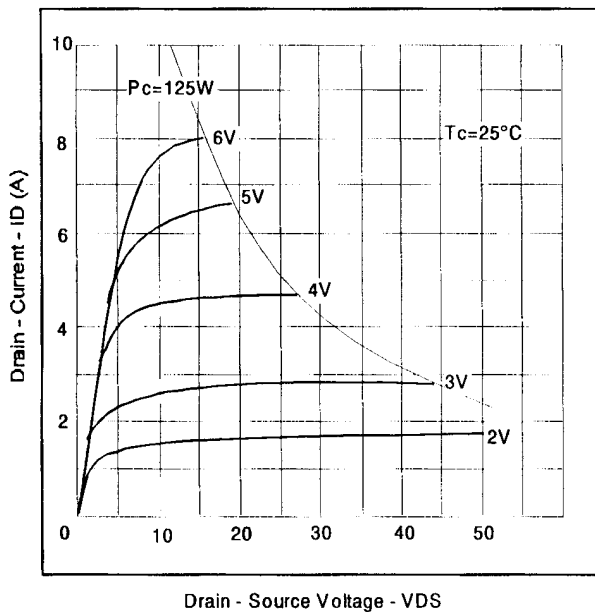
Power vs. Temperature Derating



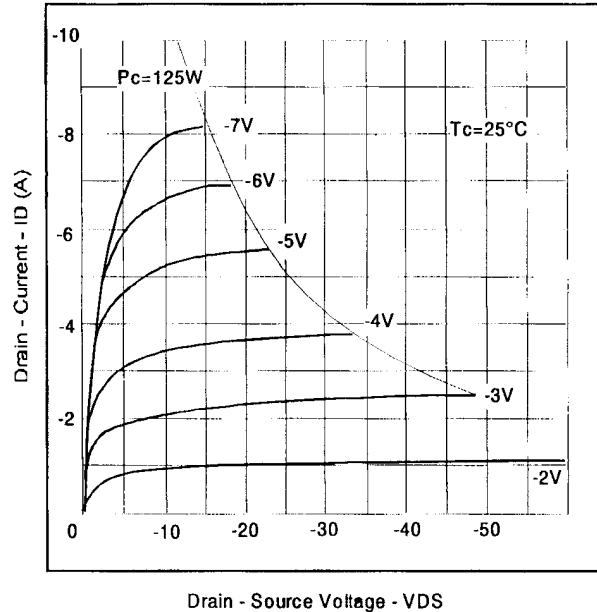
Maximum Safe Operating Area



Typical Output (N-Channel)

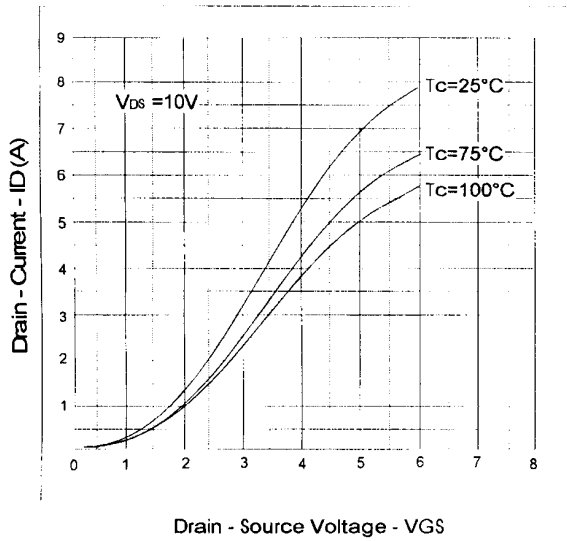


Typical Output (P-Channel)

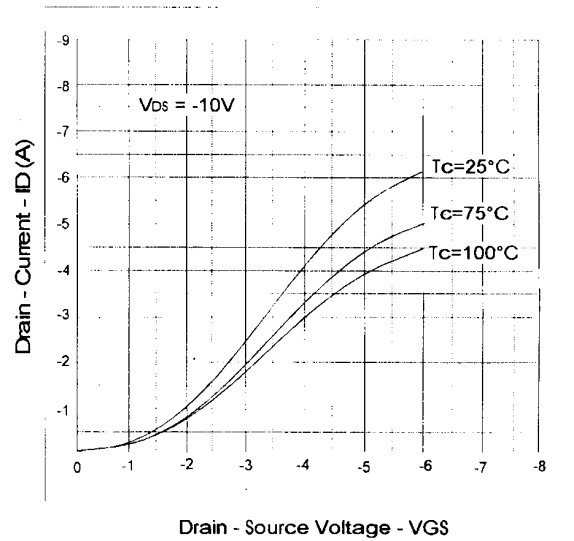


Typical Characteristics for 125W Devices (cont.)

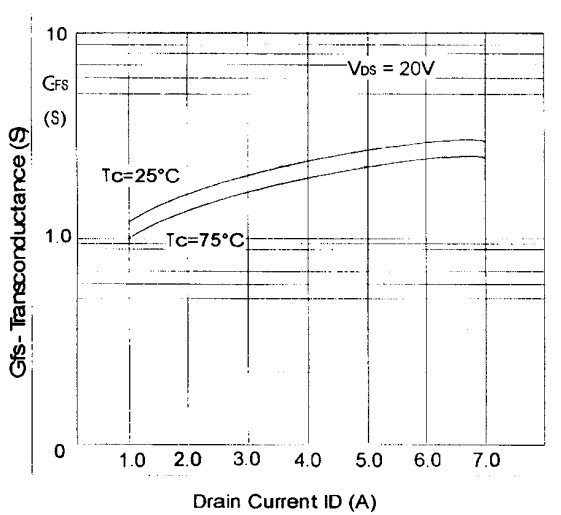
Typical Transfer Characteristics (N-Channel)



Typical Transfer Characteristics (P-Channel)



Forward Transfer Admittance (N-Channel)



Forward Transfer Admittance (P-Channel)

