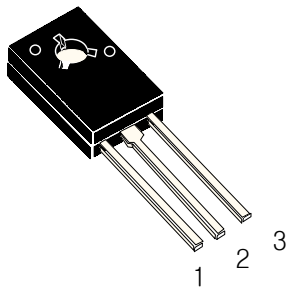
HIGH CURRENT AMPLIFIER

◇ Low Collector Saturation Voltage

◇ Complement to WSD1691

TO-126



1. Emitter
2. Collector
3. Base

ABSOLUTE MAXIMUM RATINGS (Ta=25℃)

Characteristic	Symbol	Value	Unit
Collector-Base Voltage	V_{CBO}	-60	V
Collector-Emitter Voltage	V_{CEO}	-60	V
Emitter-Base voltage	V_{EBO}	-7	V
Collector Current(DC)	I_C	-5.0	A
Collector Current(Pulse)	I_C	-8.0	A
Collector Power Dissipation(Tc=25℃)	P_C	20	W
Collector Power Dissipation(Ta=25℃)	P_C	1.3	W
Junction Temperature	Tj	150	℃
Storage Temperature	Tstg	-55~ +150	℃

ELECTRICAL CHARACTERISTICS (Ta=25℃, unless otherwise specified)

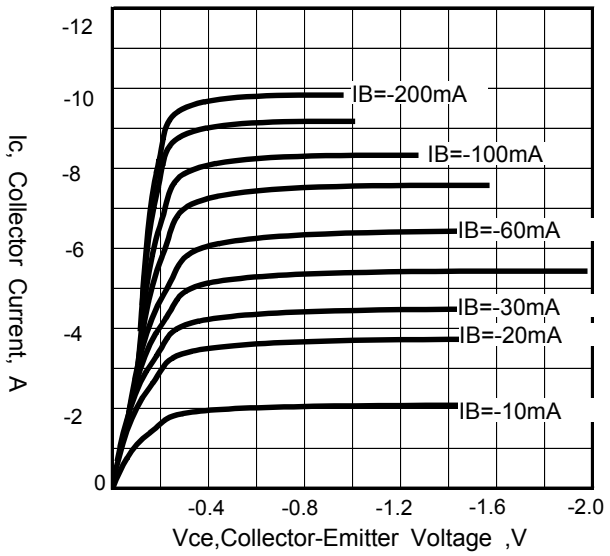
Characteristic	Symbol	Test Condition	Min	TYP	MAX	Unit
Collector Cut-off Current	I_{CBO}	V_{CB}=-50V ,I_E=0			-10	μA
Emitter Cut-off Current	I_{EBO}	V_{EB}=-7V ,I_C=0			-10	μA
*DC Current Gain	h_{FE1} #h_{FE2} h_{FE3}	V_{CE}=-1V ,I_C=-100mA V_{CE}=-1V ,I_C=-2.0A V_{CE}=-2V, I_C=-5.0A	60 100 50	200	400	
*Collector-Emitter Saturation Voltage	V_{CE}(sat)	I_C=-2A, I_B=-200mA		-0.14	-0.3	V
*Base-Emitter Saturation Voltage	V_{BE}(sat)	I_C=-2A, I_B=-200mA		-0.9	-1.2	V
Turn on Time	t_{ON}	I_C=-2.0A, R_L=5Ω		0.15	1	μs
Storage Time	t_{STG}	I_{B1}=-I_{B2}=200mA,		0.78	2.5	μs
Fall Time	t_F	V_{CC}=-10V		0.18	1	μs

* Pulse Test :PW=350μs ,Duty Cycle=2% Pulsed

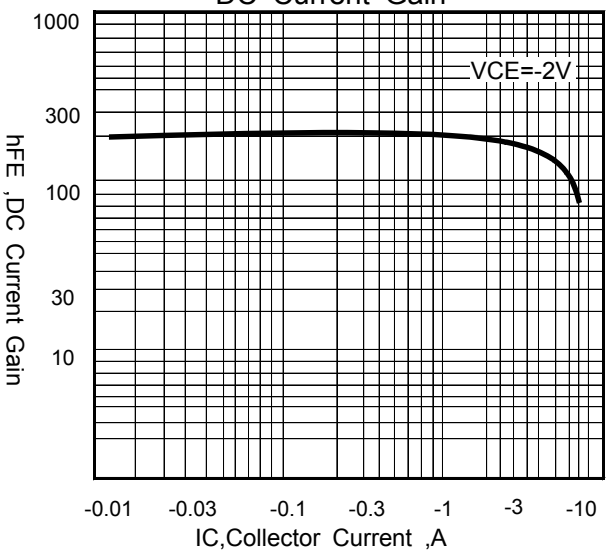
hFE(2) Classification:

Classification	O	Y	G
h_{FE}	100~200	160~320	200~400

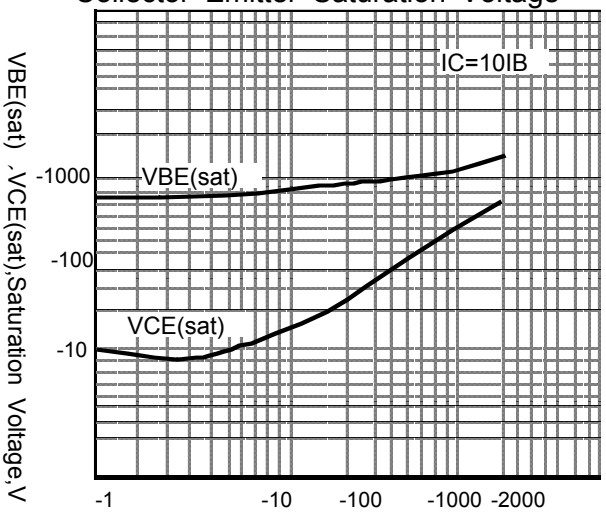
Static Characteristics



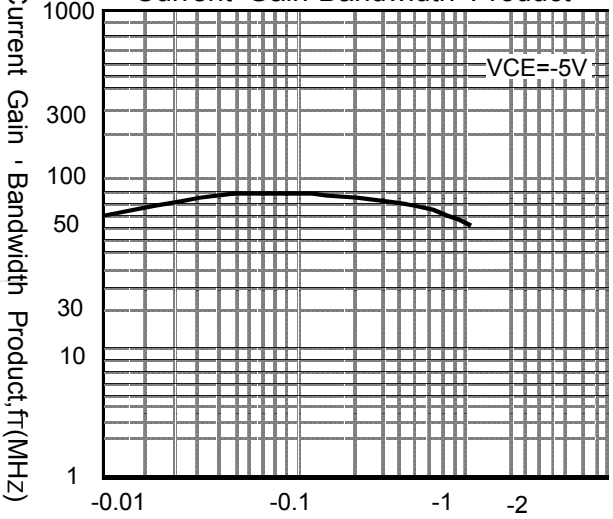
DC Current Gain



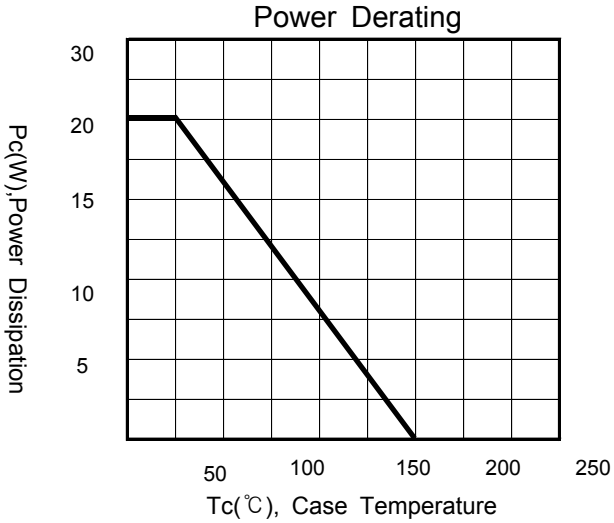
Base Emitter Saturation Voltage
Collector Emitter Saturation Voltage



Current Gain-Bandwidth Product



Power Derating



Safe Operating Area