HIGH-POWER SILICON POWER TRANSISTORS

DESCRIPTION

It is intented for use in power amplifier and switching applications.

FEATURES

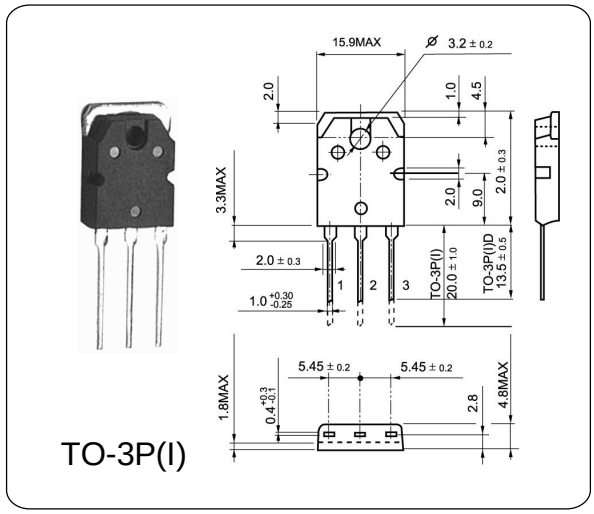
*Recommend for 45-50W Audio Frequency Amplifier Output stage.

*Complementary to B688

*Marking Logo to DF

ABSOLUTE MAXIMUM RATINGS (Ta = 25 °C)

Parameter	I	Value	Unit
Collector-Base Voltage	V_{CBO}	120	V
Collector-Emitter Voltage	V_{CEO}	120	V
Emitter-Base Voltage	V_{EBO}	5.0	V
Collector Current	I_C	8.0	A
Base Current	I_B	0.8	A
Total Dissipation at	P_{tot}	80	W
Max. Operating Junction Temperature	T_j	150	°C
Storage Temperature	T_{stg}	-55~150	°C

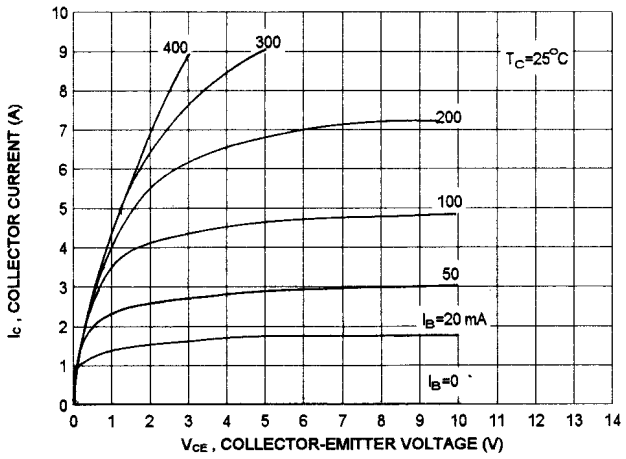


TO-3P(I)

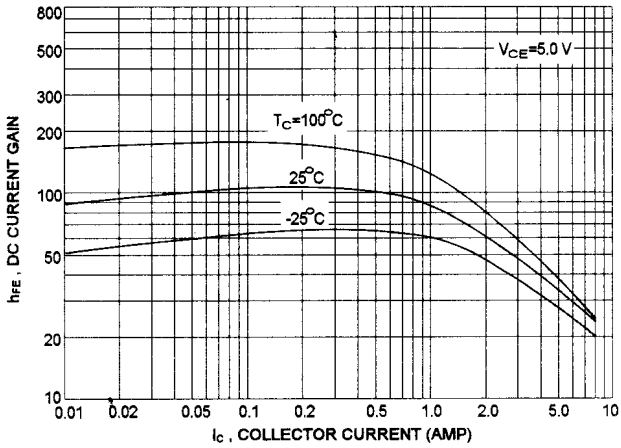
ELECTRICAL CHARACTERISTICS (Ta = 25 °C)

Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Collector Cutoff Current	I_{CBO}	V_{CB}=120V, I_E=0	—	—	10	uA
Emitter Cutoff Current	I_{EBO}	V_{EB}=5V, I_C=0	—	—	10	uA
Collector-Emitter Sustaining Voltage	V_{CEO}	I_C=50mA, I_B=0	120	—	—	V
DC Current Gain	$h_{FE(1)}$	V_{CE}=5.0V, I_C=1.0A	55	—	110	
	$h_{FE(2)}$	V_{CE}=5.0V, I_C=1.0A	80	—	160	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=5.0A,I_B=500mA	—	—	2.5	V
Base-Emitter Saturation Voltage	$V_{BE(on)}$	V_{CE}=5.0V,I_C=5.0A	—	—	1.5	V
Current Gain Bandwidth Product	f_T	V_{CE}=5.0V,I_C=1.0A,f=1.0MHz	—	12	—	MHz

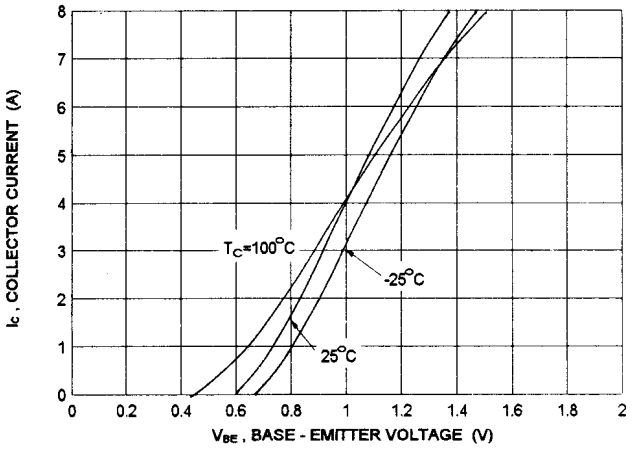
Ic - Vce



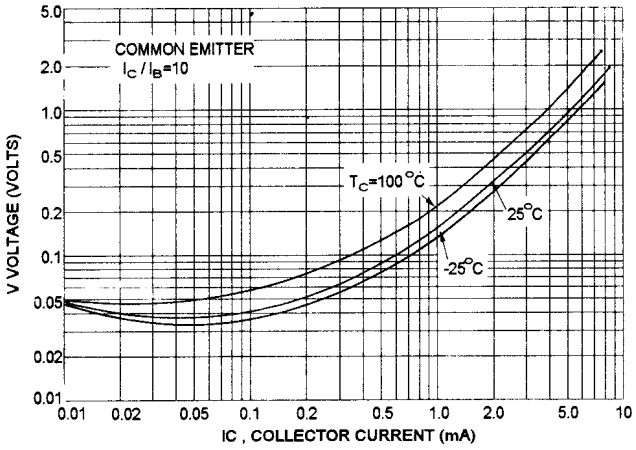
DC CURRENT GAIN



Ic - Vbe



$V_{CE(sat)}$-I_C



ACTIVE-REGION SAFE OPERATING AREA (SOA)