/ Descriptions

TO-220F NPN Silicon NPN transistor in a TO-220F Plastic Package.

/ Features

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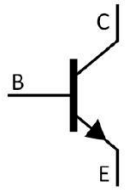
High V_{CEO}, low $V_{CE(sat)}$.

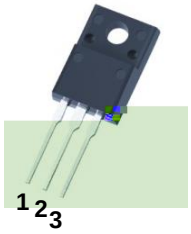
/ Applications

Power out amplifier applications.

/ Equivalent Circuit



/ Pinning



PIN1 Base PIN 2 Collector PIN 3 Emitter

/ h_{FE} Classifications & Marking

h_{FE} Classifications Symbol	R	O
h_{FE} Range	60 120	100 200

/ Absolute Maximum Ratings(Ta=25)

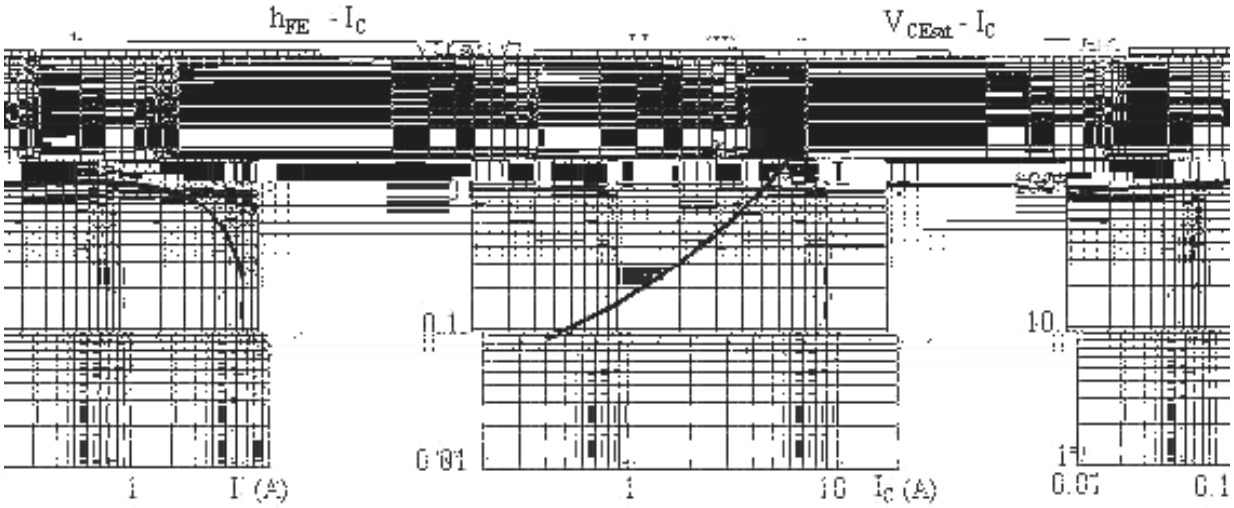
Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	100	V
Collector to Emitter Voltage	V_{CEO}	100	V
Emitter to Base Voltage	V_{EBO}	5.0	V
Collector Current - Continuous	I_C	5.0	A
Collector Power Dissipation	P_C	2.0	W
Collector Power Dissipation	$P_C(T_C=25$)	40	W
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55 150	

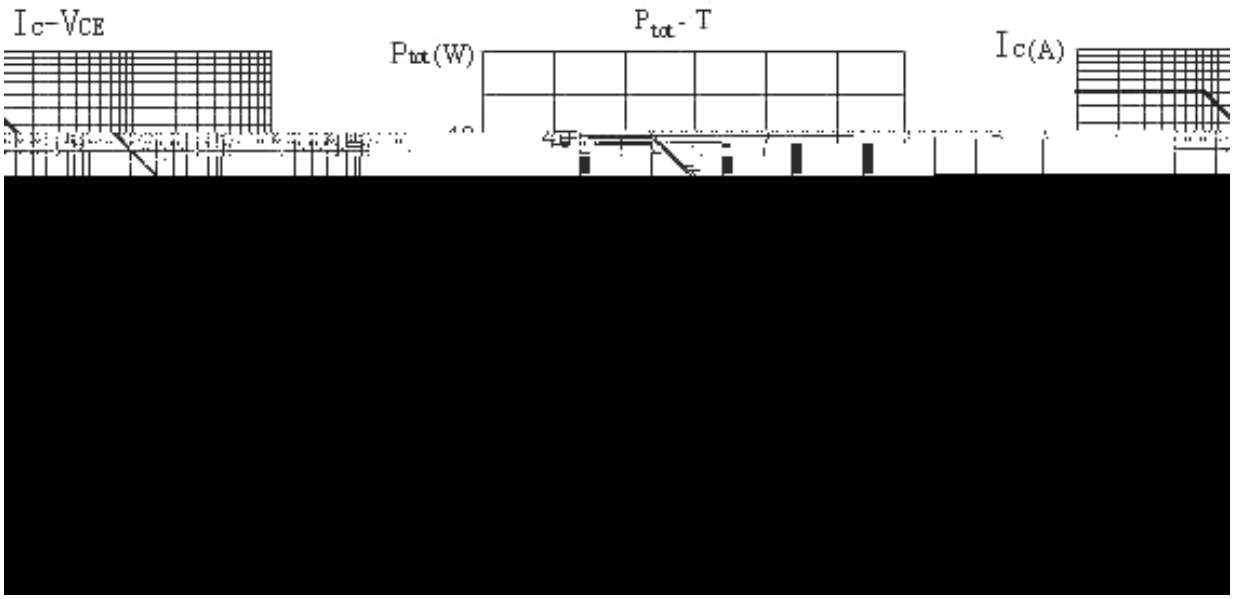
/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector Cut-Off Current	I_{CBO}	V_{CB}=100V I_E=0			20	μA
Emitter Cut-Off Current	I_{EBO}	V_{EB}=5.0V I_C=0			20	μA
DC Current Gain*	h_{FE}	V_{CE}=5.0V I_C=1.0A*	60		200	
Collector to Emitter Saturation Voltage*	$V_{CE(sat)}$	I_C=3.0A I_B=0.3A*			1.0	V
Transition Frequency	f_T	V_{CE}=5.0V I_C=500mA f=1.0MHz	10			MHz

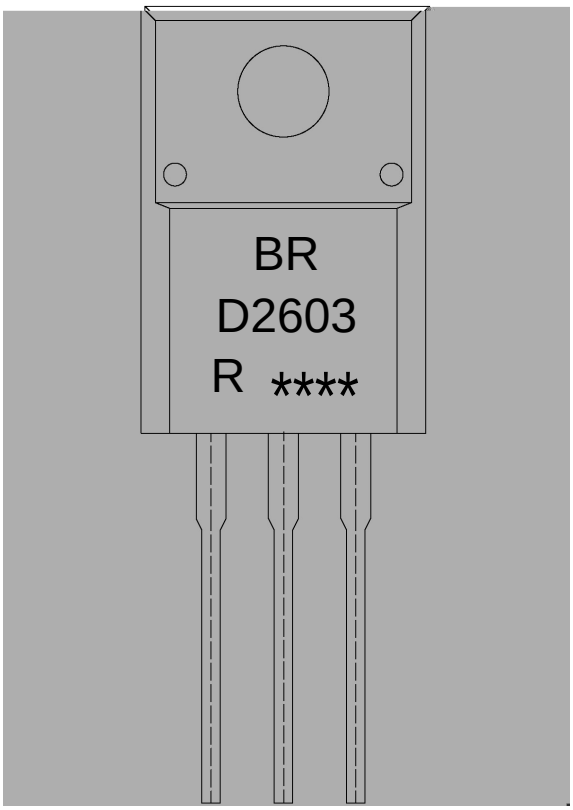
*: /pulse test.

/ Electrical Characteristic Curve





/ Marking Instructions



BR

D2603

R: h_{FE}

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Note:

BR:	Company Code.
D2603:	Product Type.
R:	h_{FE} Classifications Symbol
****:	Lot No. Code, code change with Lot No.