/ Descriptions

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

/ Features

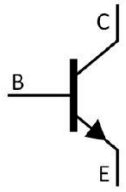
, , 2SB1063

Excellent h_{FE}, wide ASO, high f_T. complementary to 2SB1063.

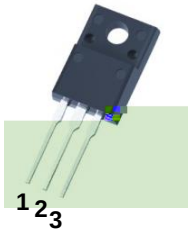
/ Applications

High power amplifier application.

/ Equivalent Circuit



/ Pinning



PIN1 Base PIN 2 Collector PIN 3 Emitter

/ h_{FE} Classifications & Marking

h_{FE} Classifications Symbol	Q	P
h_{FE} Range	60 120	100 200

/ Absolute Maximum Ratings(Ta=25)

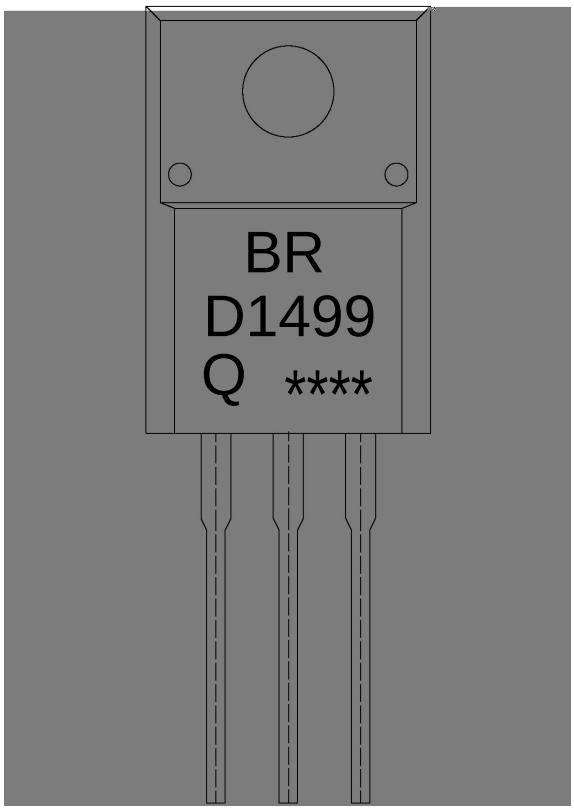
Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	100	V
Collector to Emitter Voltage	V_{CEO}	100	V
Emitter to Base Voltage	V_{EBO}	5.0	V
Collector Current - Continuous	I_C	5.0	A
Collector Current – Continuous(Pulse)	I_{CP}	8.0	A
Collector Power Dissipation	P_C	2.0	W
Collector Power Dissipation	$P_C(T_C=25$)	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			50	A
Emitter Cut-Off Current	I_{EBO}	V_{EB}=3.0V I_C=0			50	A
DC Current Gain	$h_{FE(1)}$	V_{CE}=5.0V I_C=1.0A	60		200	
	$h_{FE(2)}$	V_{CE}=5.0V I_C=3.0A	20			
	$h_{FE(3)}$	V_{CE}=5.0V I_C=20mA	20			
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=3.0A I_B=0.3A			2.0	V
Base to Emitter Voltage	V_{BE}	V_{CE}=5.0V I_C=3.0A			1.8	V
Transition Frequency	f_T	V_{CE}=5.0V I_C=0.5A f=1.0MHz		20		MHz
Collector output capacitance	C_{ob}	V_{CB}=10V f=1.0MHz		90		pF

2SD1499

/ Marking Instructions



BR

D1499

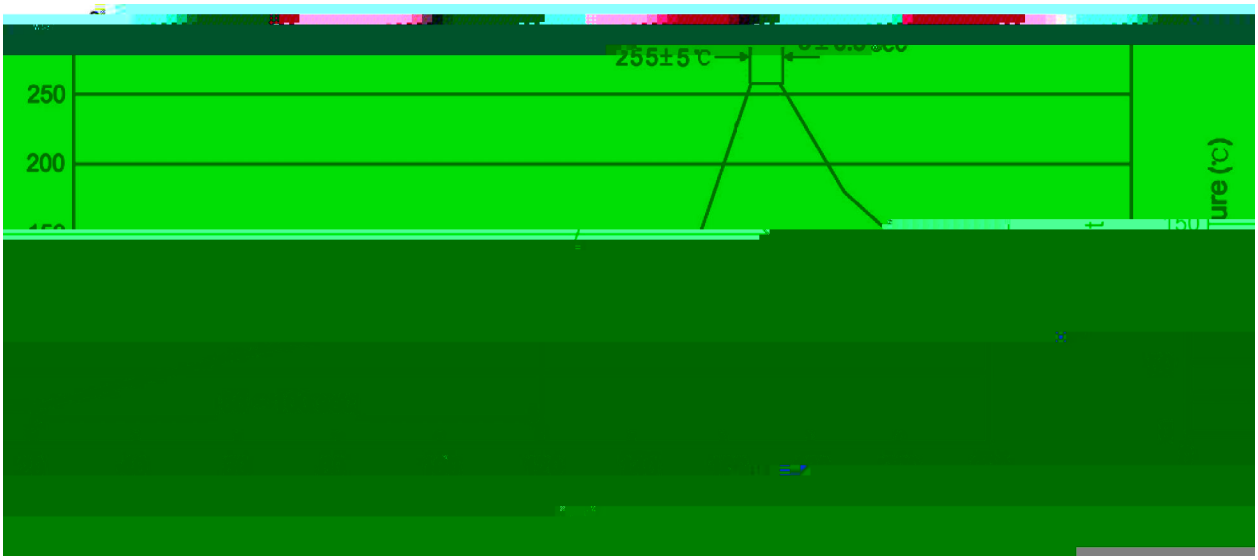
Q: h_{FE}

****

Note:

BR:	Company Code.
D1499:	Product Type.
Q:	h_{FE} Classifications Symbol
****:	Lot No. Code, code change with Lot No.

( ) / Temperature Profile for Dip Soldering(Pb-Free)



				Note:
1	25 150	60 90sec;		1.Preheating:25~150 , Time:60~90sec.
2	255±5	5±0.5sec;		2.Peak Temp.:255±5 , Duration:5±0.5sec.
3	2 10 /sec.			3. Cooling Speed: 2~10 /sec.

/ Resistance to Soldering Heat Test Conditions

270±5	10±1 sec.	Temp.:270±5	Time:10±1 sec

/ Packaging SPEC.

/ BULK

Package Type	Units				Dimension (unit mm^3)
	Units/Bag /	Bags/Inner Box /	Units/Inner Box /	In	