

TT2190

Rev.F Mar.-2016

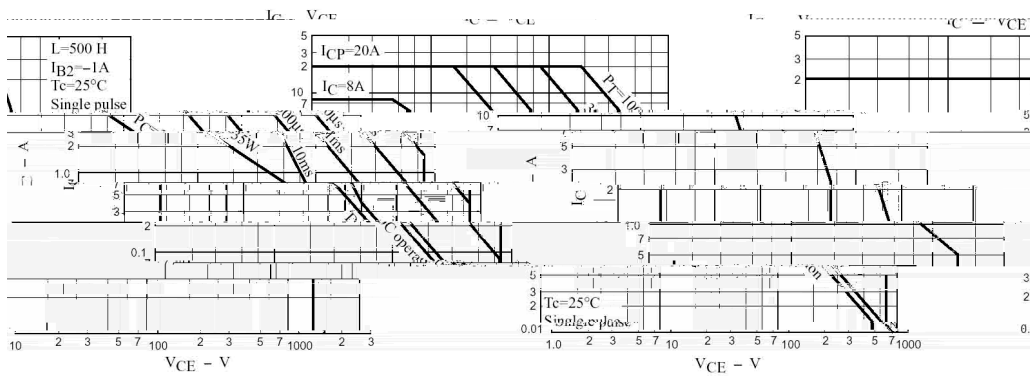
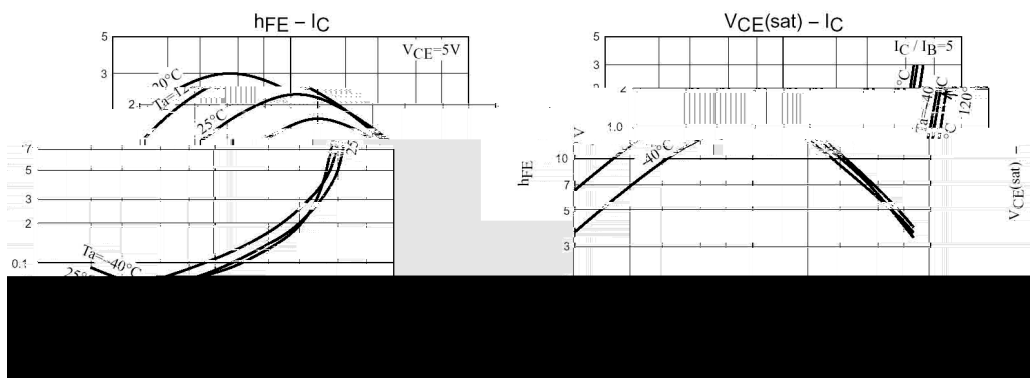
/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	$V_{CBO(sus)}$	1500	V
Collector to Emitter Voltage	V_{CEO}	800	V
Emitter to Base Voltage	V_{EBO}	6.0	V
Collector Current - Continuous	I_C	8.0	A
Collector Current – Continuous(Pulse)	I_{CP}	20	A
Collector Power Dissipation	P_C	2.0	W
Collector Power Dissipation	$P_C (T_c=25^{\circ}C)$	35	W
Junction Temperature	T_j	150	$^{\circ}C$
Storage Temperature Range	T_{stg}	-55 150	$^{\circ}C$

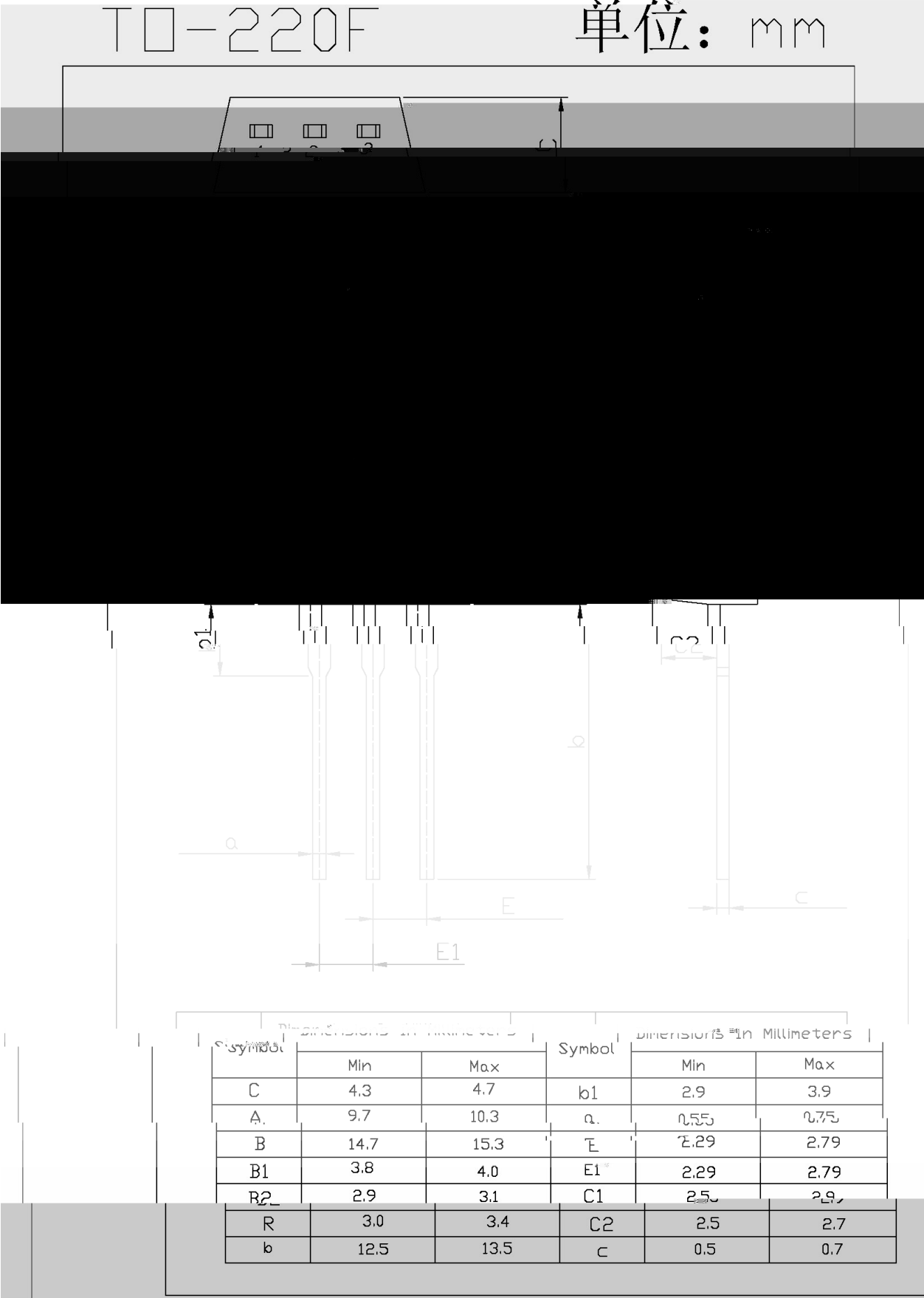
/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector Sustain Voltage	$V_{CEO(sus)}$	$I_C=100mA$ $I_B=0$	800			V
Collector Cut-Off Current	I_{ces}	$V_{CB}=1500V$ $R_{BE}=0$			1.0	mA
Collector Cut-Off Current	I_{CBO}	$V_{CB}=800V$ $I_E=0$			10	μA
Emitter Cut-Off Current	I_{EBO}	$V_{EB}=4.0V$ $I_C=0$	40		130	mA
DC Current Gain	$h_{FE(1)}$	$V_{CE}=5.0V$ $I_C=5.0A$	5		8	
	$h_{FE(2)}$	$V_{CE}=5.0V$ $I_C=1.0A$	10			
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=4.5A$ $I_B=0.9A$			3.0	V
Base to Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=4.5A$ $I_B=0.9A$			1.5	V
Diode Forward Voltage	V_F	$I_{EC}=7.0A$			2.0	V
Fall Time	t_f	$I_C=3.0A$ $I_{B1}=0.6A$ $I_{B2}=1.2A$			0.3	μS

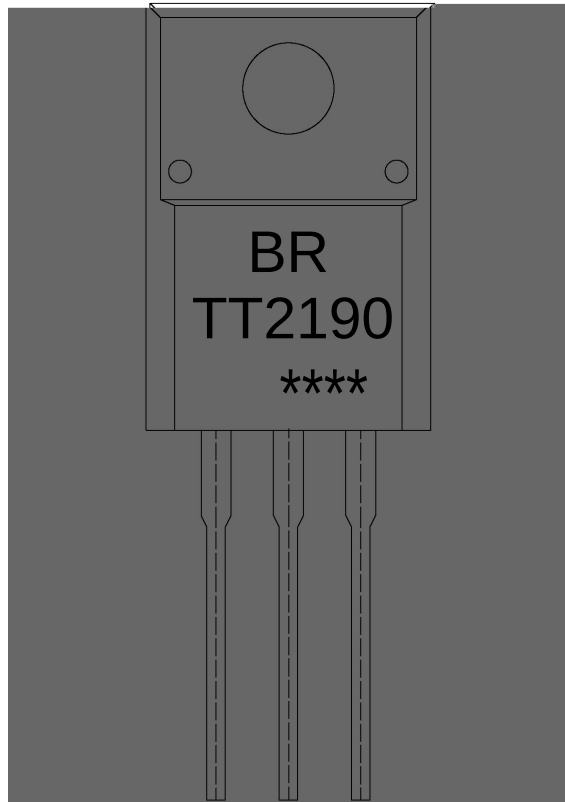
/ Electrical Characteristic Curve



/ Package Dimensions



/ Marking Instructions



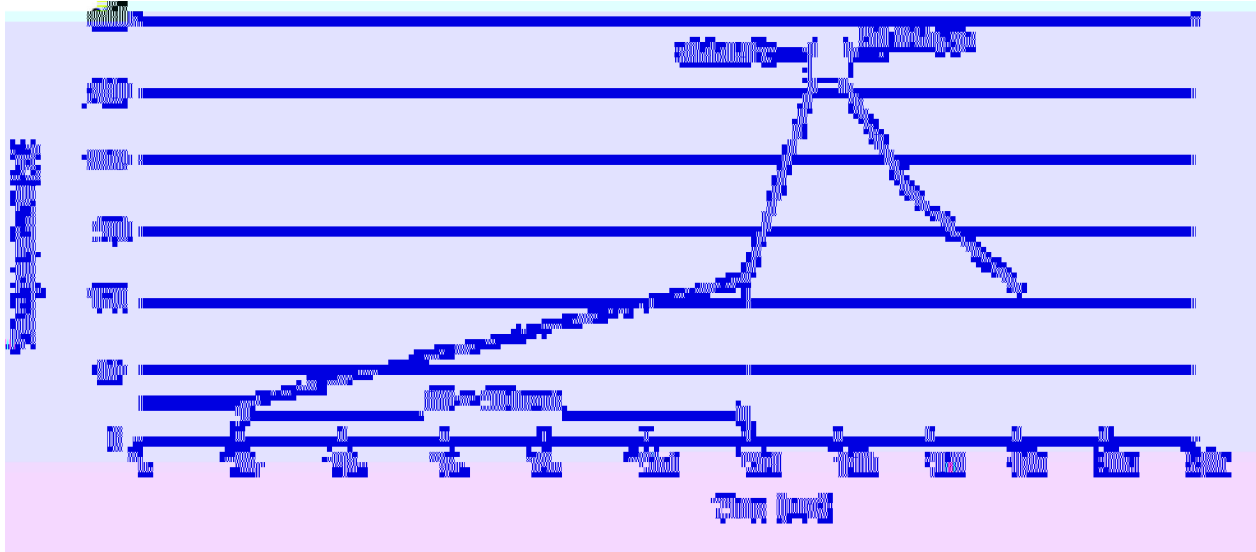
Note:

BR: Company Code.

TT2190: Product Type.

****: 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 /	Inner Boxes/Outer Box /	Units/Outer Box /	Bag	Inner Box	Outer Box
TO-220/F	200	10	2,000	5	10,000	135×190	237×172×102	560×245×195

/ TUBE

Package Type	Units					Dimension (unit mm ³)		
	Units/Tube /	Tubes/Inner Box /	Units/Inner Box /	Inner Boxes/Outer Box /	Units/Outer Box /	Tube	Inner Box	Outer Box
TO-220/F	50	20	1,000	5	5,000	532×31.4×5.5	555×164×50	575×290×180

/ Notices