/ Descriptions

TO-92 NPN Silicon NPN transistor in a TO-92 Plastic Package.

/ Features

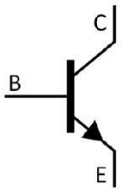
:G_{pe}=33dB( )(f=45MHz),h_{FE}

High gain: G_{pe}=33dB(Typ)(f=45MHz),good linearity of h_{FE}.

/ Applications

TV final picture IF amplifier applications.

/ Equivalent Circuit



/ Pinning



PIN1 Base PIN 2 Collector PIN 3 Emitter

/ hFE Classifications & Marking

See Marking Instructions.

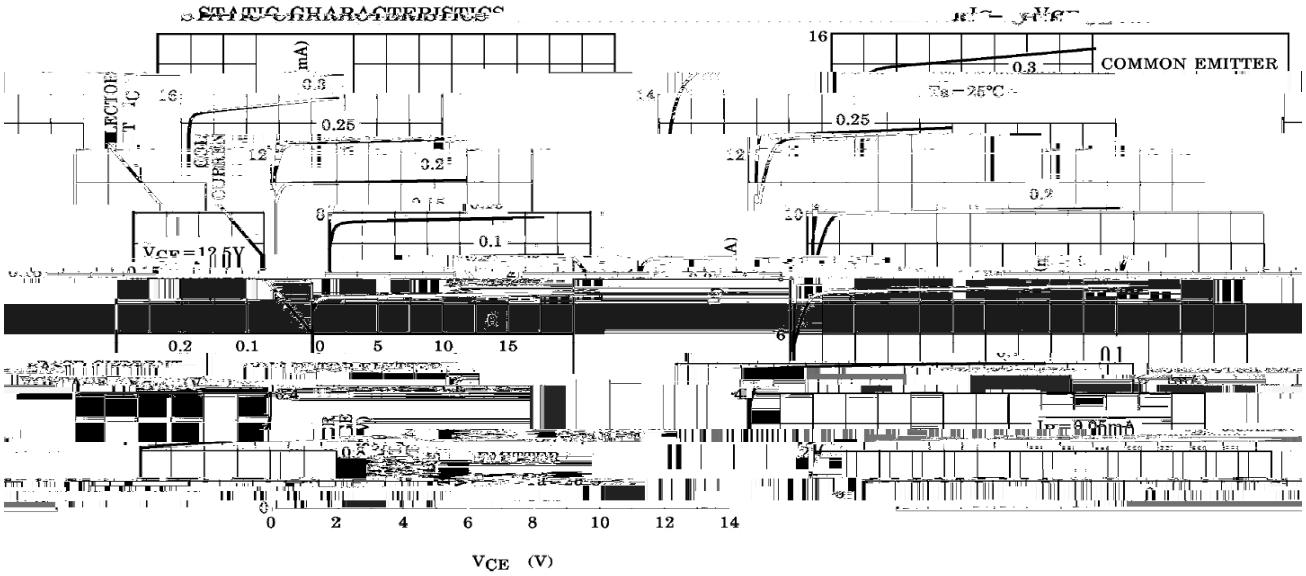
/ Absolute Maximum Ratings(Ta=25)

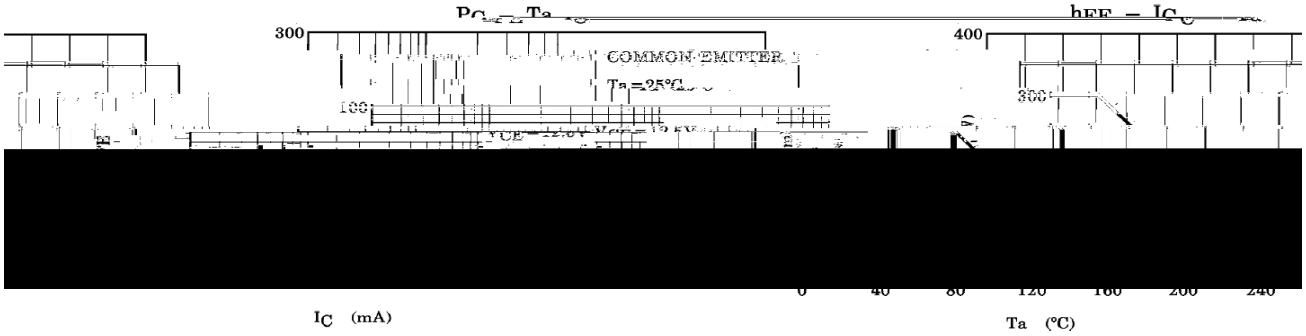
Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	50	V
Collector to Emitter Voltage	V_{CEO}	45	V
Emitter to Base Voltage	V_{EBO}	4.0	V
Collector Current - Continuous	I_C	50	mA
Emitter Current - Continuous	I_E	-50	mA
Collector Power Dissipation	P_C	300	mW
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55 150	

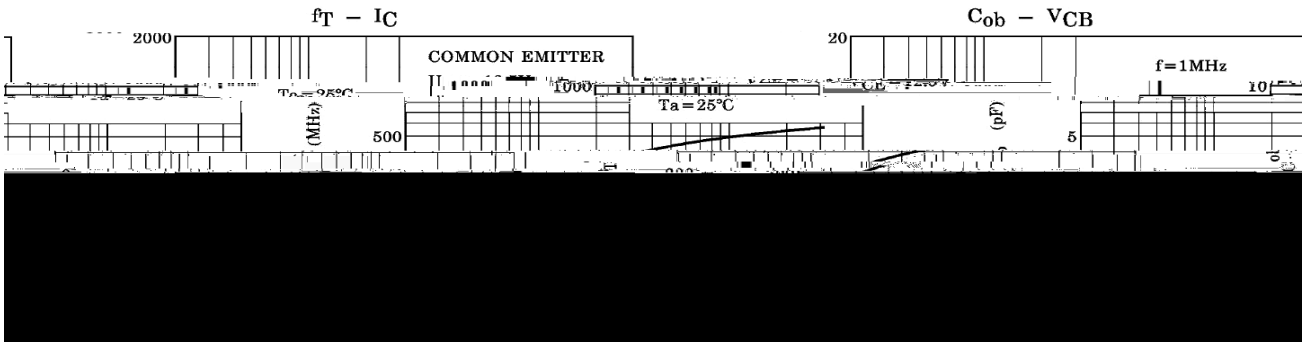
/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Emitter Breakdown Voltage	V_{CEO}	I_C=10mA I_B=0	45			V
Collector Cut-Off Current	I_{CBO}	V_{CB}=50V I_E=0			0.1	μA
Emitter Cut-Off Current	I_{EBO}	V_{EB}=3.0V I_C=0			0.1	μA
DC Current Gain	h_{FE}	V_{CE}=12.5V I_C=12.5mA	20		100	
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=15mA I_B=1.5mA			0.2	V
Base to Emitter Saturation Voltage	$V_{BE(sat)}$	I_C=15mA I_B=1.5mA			1.5	V
Transition Frequency	f_T	V_{CE}=12.5V I_C=12.5mA	300			MHz
Collector Output Capacitance	C_{ob}	V_{CB}=10V I_E=0 f=1MHz	0.8		2.0	pF
Power Gain	G_{pe}	V_{CC}=12.5V I_E=-12.5mA f=45MHz	29		36	dB
Collector to Base Time Constant	C_C.rbb	V_{CB}=10V I_E=-1.0mA f=30MHz			25	pS

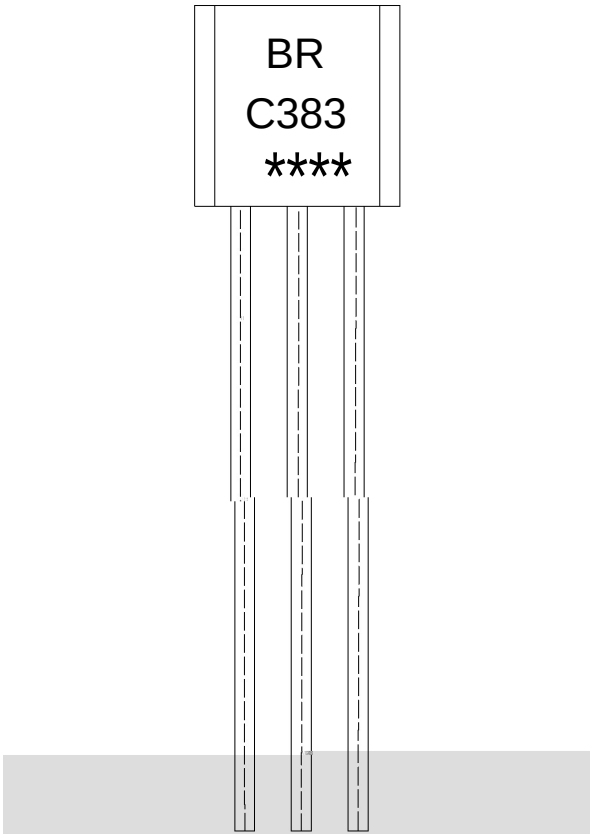
/ Electrical Characteristic Curve







/ Marking Instructions



BR:

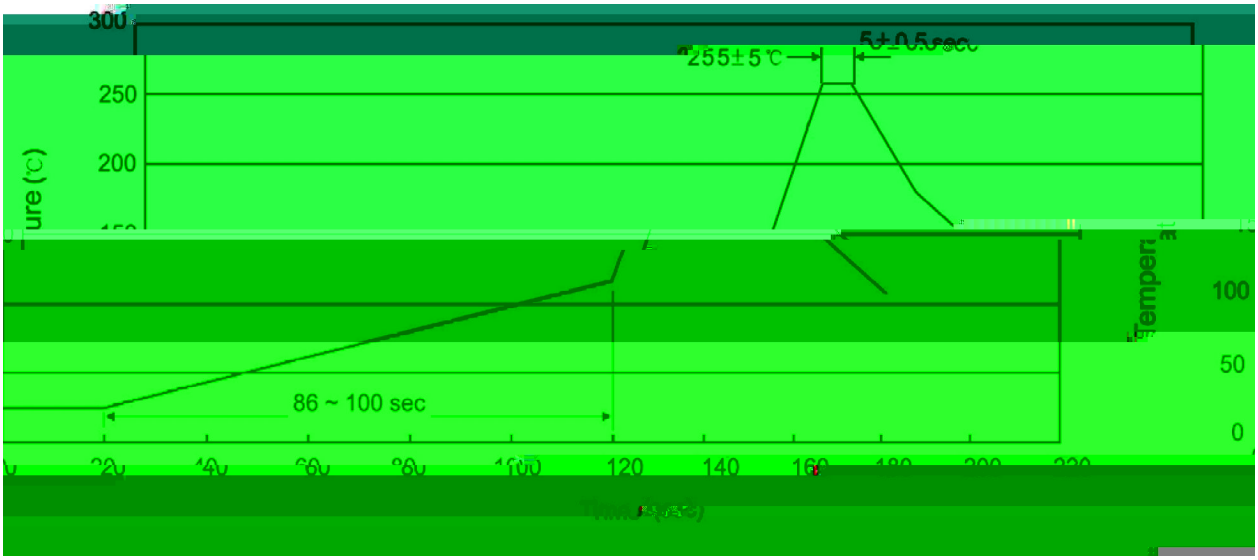
C383

****

Note:

BR:	Company Code.
C383:	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 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm3)		
	Units/Bag 只/袋	Bags/Inner Box 袋/盒	Units/Inner Box 只/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Bag 袋	Inner Box 盒	Outer Box 箱
TO-92	1,000	10	10,000	5	50,000	135×190	237×172×102	560×245×195
	1,000	10	10,000	10	100,000	135×190	237×172×102	560×245×375