

2SA778(A)
Rev.E Mar.-2016

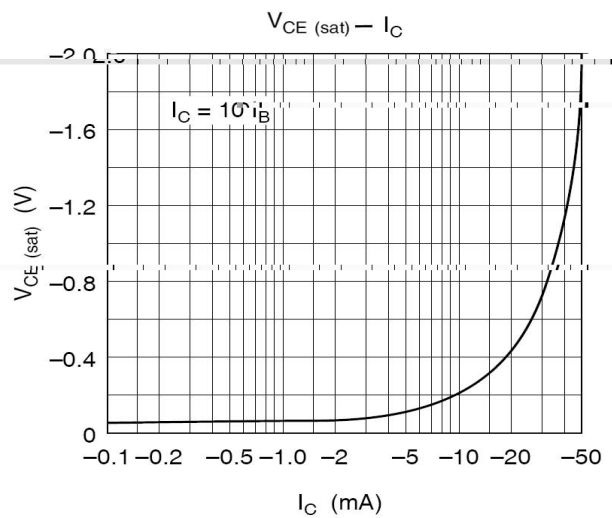
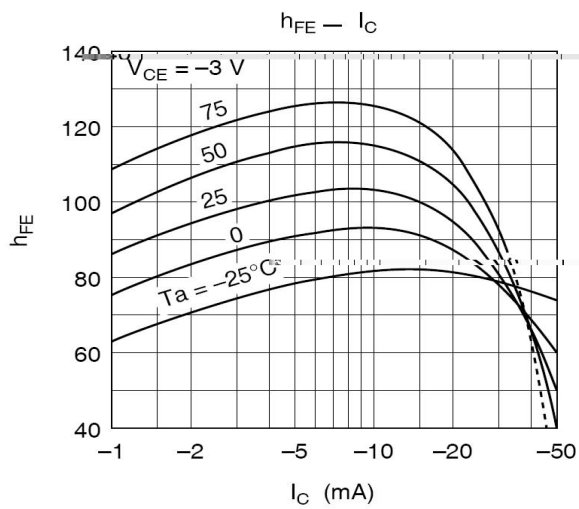
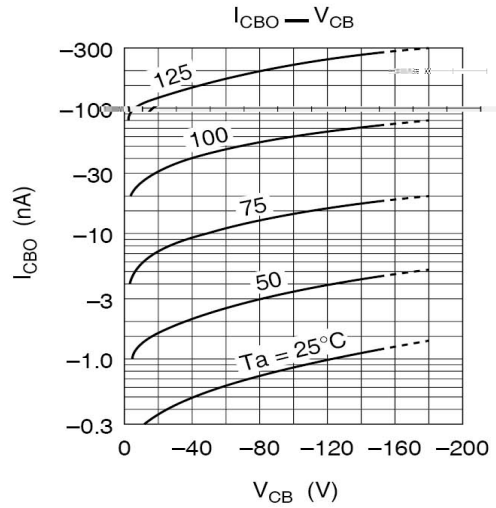
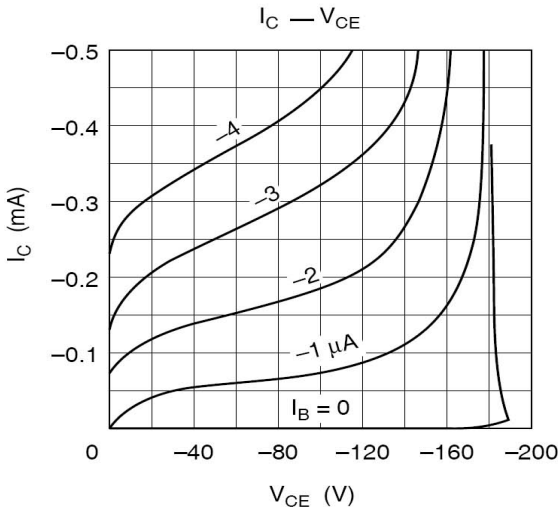
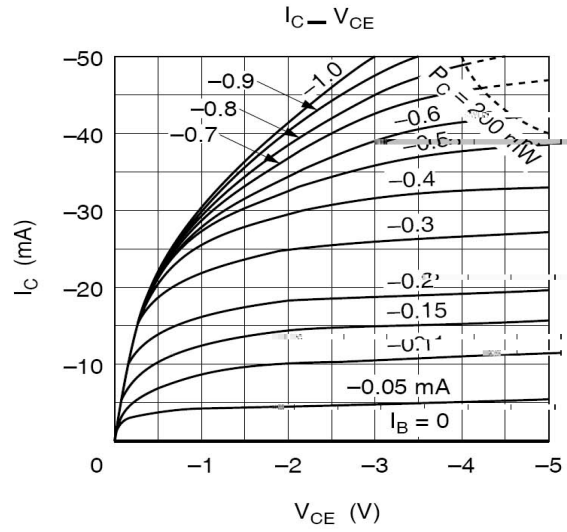
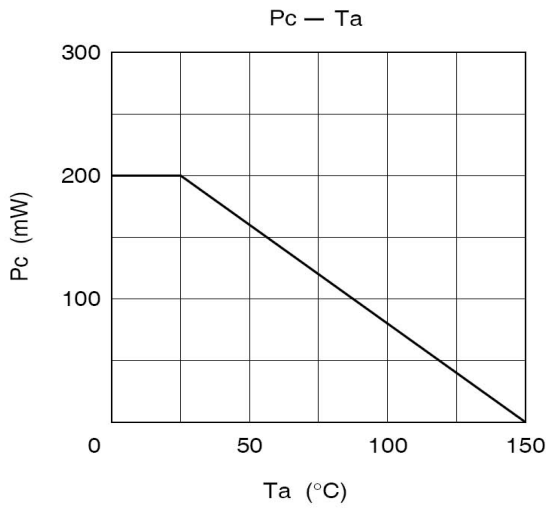
/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit	
Collector to Base Voltage	V _{CBO}	2SA778	-150	V
		2SA778A	-180	
Collector to Emitter Voltage	V _{CEO}	2SA778	-150	V
		2SA778A	-180	
Emitter to Base Voltage	V _{EBO}	-5.0	V	
Collector Current - Continuous	I _C	-50	mA	
Collector Power Dissipation	P _C	200	mW	
Junction Temperature	T _j	150		
Storage Temperature Range	T _{stg}	-55~150		

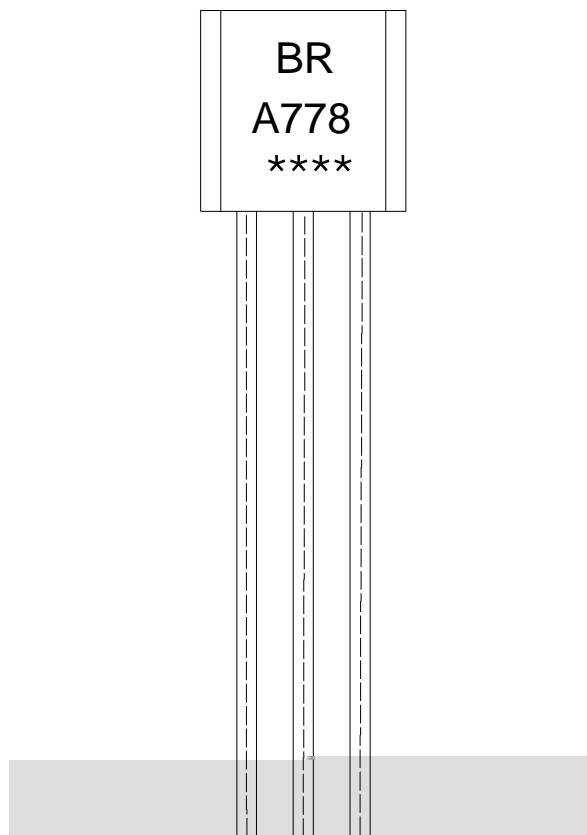
/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Base Breakdown Voltage	V _{CBO}	2SA778	I _C =-50μA I _E =0			V
		2SA778A				
Collector to Emitter Breakdown Voltage	V _{CBO}	2SA778	I _C =-50μA I _E =0			V
		2SA778A				
Collector Cut-Off Current	I _{CBO}	2SA778	V _{CB} =-100V I _E =0			μA
		2SA778A	V _{CB} =-150V I _E =0			
Emitter Cut-Off Current	I _{EBO}	V _{EB} =-5.0V I _C =0			-1.0	μA
DC Current Gain	h _{FE}	2SA778	V _{CE} =-3.0V I _C =-15mA			
		2SA778A				
Collector to Emitter Saturation Voltage	V _{CE(sat)}	I _C =-15mA I _B =-1.0mA		-0.3	-1.0	V
Base to Emitter Saturation Voltage	V _{BE(sat)}	I _C =-15mA I _B =-1.0mA		-0.77	-1.0	V
Transition Frequency	f _T	V _{CE} =-3.0V I _C =-15mA		50		MHz
Collector Output Capacitance	C _{ob}	V _{CB} =-10V I _E =0 f=1.0MHz			10	pF
Turn On Time	t _{on}	V _{CC} =-10.3V I _C =10 I _{B1} =-10 I _{B2} =-10mA		135		ns
Turn Off Time	t _{off}	V _{CC} =-10.3V I _C =10 I _{B1} =-10 I _{B2} =-10mA		1.7		μs
Storage Time	t _{stg}	V _{CC} =-10V I _C =-17mA I _{B1} =-1.0mA I _{B2} =12mA			1.0	μs

/ Electrical Characteristic Curve



/ Marking Instructions



BR:

A778

Note:

BR: Company Code.

A778: 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

/ AMMO

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm3)	
	Units/tape 只/纸带	Tape/Inner Box 纸带/盒	Rows/Inner Box 纸带层/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Inner Box 盒	Outer Box 箱
TO-92	3,000	1	120	10	30,000	328×230×42	小箱 480×346×235, 大箱 547×407×268

/ Notices