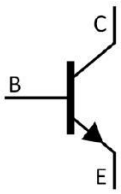
SOT-89 NPN Silicon NPN transistor in a SOT-89 Plastic Package.

$V_{CE(sat)}$,h_{FE} AEC-Q101

Low saturation voltage, excellent h_{FE} linearity and high h_{FE},Qualified to8 0y366dC-Q1001Sghh,f HF Producte.

9 —

DC-eDicoverter 8y drlivhh

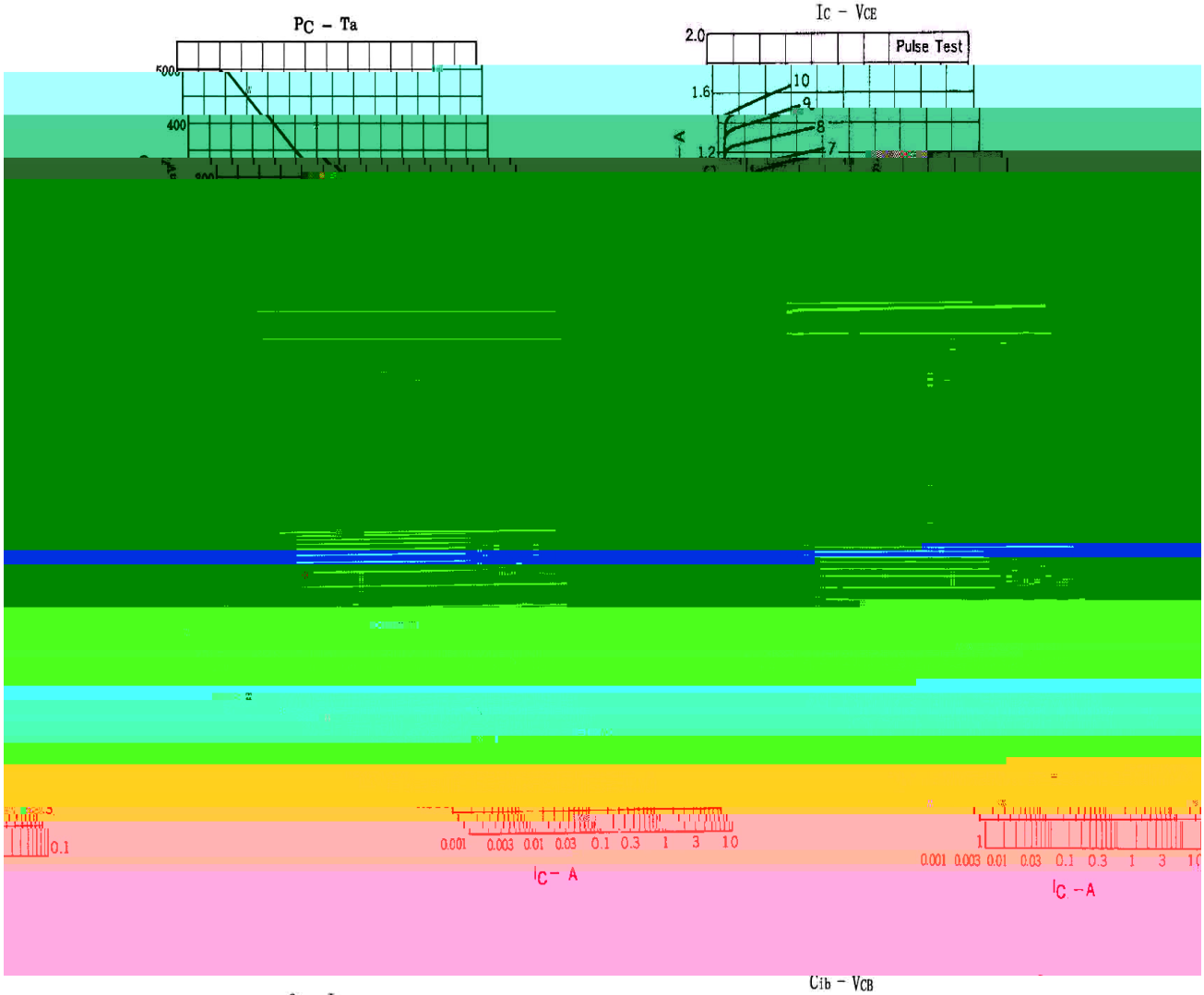


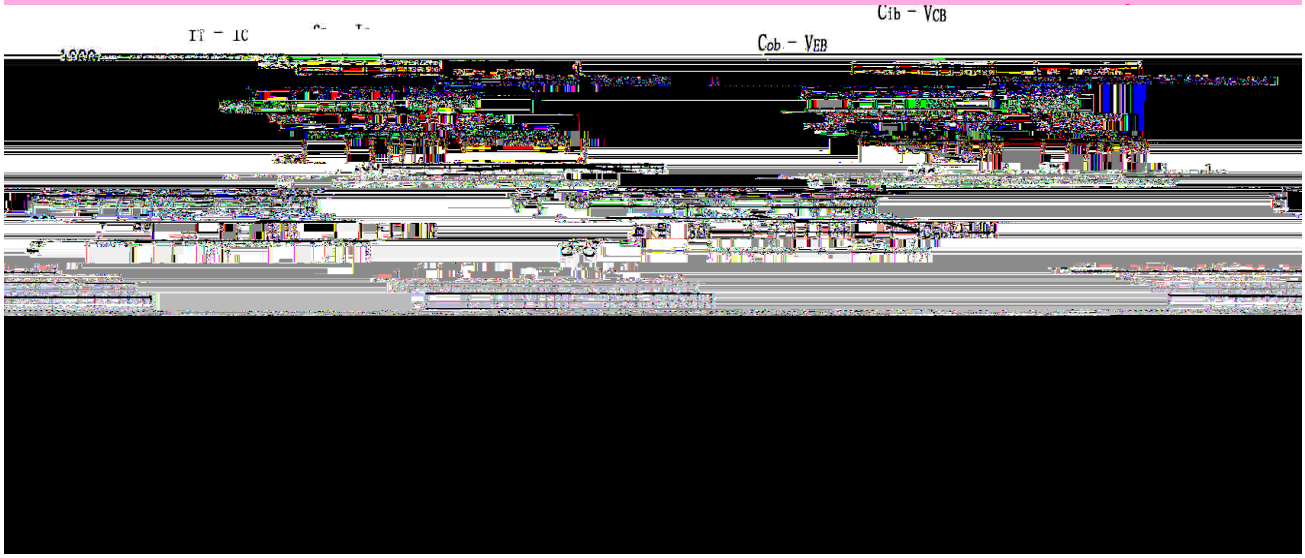
Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	40	V
Collector to Emitter Voltage	V_{CEO}	30	V
Emitter to Base Voltage	V_{EBO}	5.0	V
Collector Current-Continuous	I_C	3.0	A
Collector Power Dissipation	P_C	500	mW
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55 150	

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector Cut-Off Current	I_{CBO}	V_{CB}=30V I_E=0			1.0	μA
Emitter Base Cut-Off Current	I_{EBO}	V_{EB}=3.0V I_C=0			1.0	μA
DC Current Gain	$h_{FE(1)}$	V_{CE}=2.0V I_C=1.0A	60	160	400	
	$h_{FE(2)}$	V_{CE}=2.0V I_C=20mA	30	150		
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=2.0A I_B=0.2A		0.3	0.5	V
Base to Emitter Saturation Voltage	$V_{BE(sat)}$	I_C=2.0A I_B=0.2A		1.0	2.0	V
Transition Frequency	f_T	V_{CE}=5.0V I_C=0.1A		90		MHz
Collector Output Capacitance	C_{ob}	V_{CB}=10V I_E=0 f=1.0MHz		45		pF

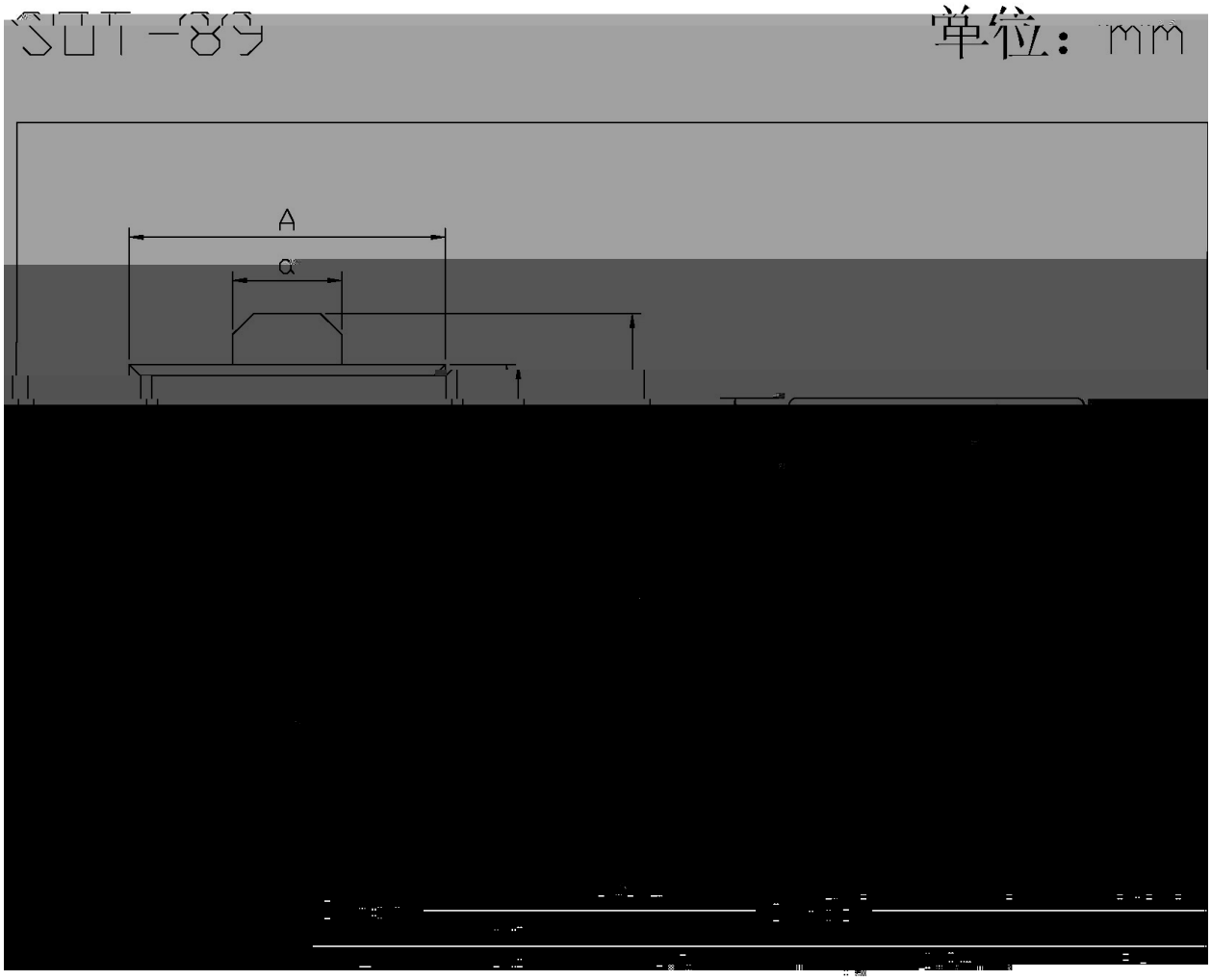
V

/ Electrical Charac2vristic Curve

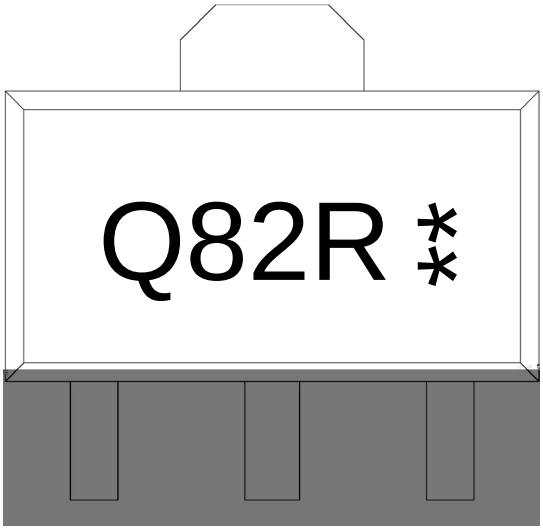




/ Package Dimensions



/ Marking Instructions



Q

82

R h_{FE}

**

Note:

Q: Automobile halogen-free product Code

82: Product Type

R h_{FE} Classifications Symbol

**: Lot No. Code, code change with Lot No.

( ) / Temperature Profile for IR Reflow Soldering(Pb-Free)

Note:

1	150 200 60 120sec;	1.Preheating:150~200 , Time:60~120sec.
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.

° - 0 ł. 5 s e c .