

LE' © MATERIAL APPROVAL SHEET

CUSTOMER: TC

DATE: 5/1993

RAND: SANYO

MODEL NO:

ITEM: 2SC2078 D/E

ATT NAME:

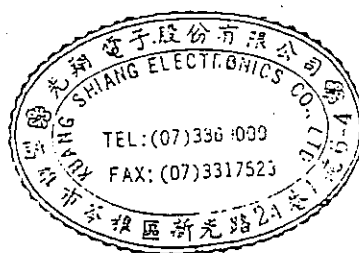
CUSTOMER APPROVAL:

>1-151PA/154PA/1550A/1646A

MODEL NO.	>1-CB 431
PART NAME	TRANSISTOR
PART NO.	ST2C2078-D

APPROVE			
TC ELECTRONICS (TAIWAN) CORP.			
APPROVE	CHECK	CHECK	INCHARGE
	3 06/7		Fly

SUPPLIER CHECK:



光翔電子股份有限公司

KUANG SHIANG ELECTRONICS CO., LTD

光友國際股份有限公司

公司：高市苓雅區新光路24巷1號六樓之四

TEL: (07) 336 9009 (代表號)

FAX: (07) 331 7523

G2

2SC2078



2010A

NPN Epitaxial Planar Silicon Transistor

27MHz High Frequency Power Amp Applications

©-462D

Absolute Maximum Ratings at $T_a=25^{\circ}\text{C}$

Collector to Base Voltage	V_{CB0}	80	V
Collector to Emitter Voltage	V_{CER}	75	V
Emitter to Base Voltage	V_{EBO}	5	V
Collector Current	I_C	3	A
Peak Collector Current	i_{cp}	5	A
Collector Dissipation	P_C	1.2	W
		10	W
Junction Temperature	T_j	150	$^{\circ}\text{C}$
Storage Temperature	T_{stg}	-55 to +150	$^{\circ}\text{C}$

$R_{BE}=150\text{ohm}$

$T_c=50^{\circ}\text{C}$

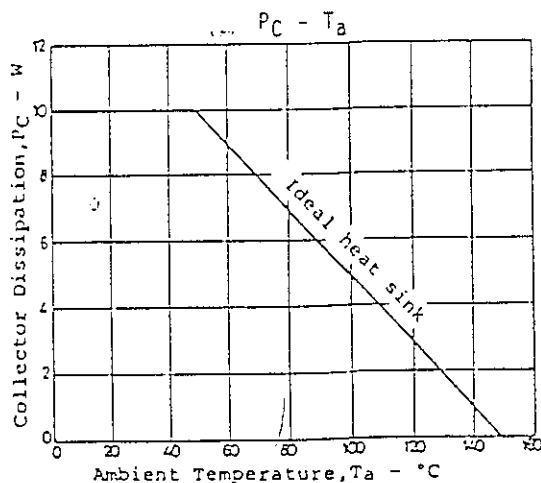
Electrical Characteristics Characteristics at $T_a=25^{\circ}\text{C}$

		min	typ	max	unit
Collector Cutoff Current	I_{CBO}			10	μA
Emitter Cutoff Current	I_{EBO}			10	μA
DC Current Gain	h_{FE}			25*	
Gain Bandwidth Product	f_T	100	150	200*	MHz
Output Capacitance	c_{ob}		45	60	pF
C-E Saturation Voltage	$V_{CE(sat)}$		0.15	0.6	V
B-E Saturation Voltage	$V_{BE(sat)}$		0.9	1.2	V
C-B Saturation Voltage	$V_{(BR)CBO}$	80			V
C-E Saturation Voltage	$V_{(BR)CER}$	75			V
E-B Saturation Voltage	$V_{(BR)EBO}$	5			V
[At specified test circuit]					
Output Power	P_o		4.0		W
Power Efficiency	η		60		%

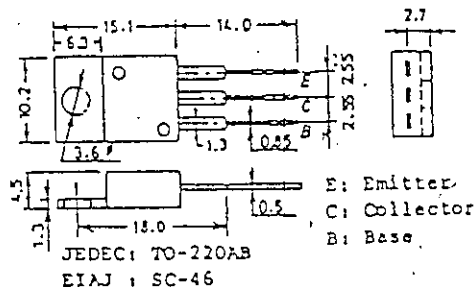
$V_{CC}=12\text{V}, f=27\text{MHz}, P_i=0.2\text{W}$

*:The 2SC2078 is classified by 0.5A h_{FE} as follows:

25	B	50	40	C	80	60	D	120	100	E	200
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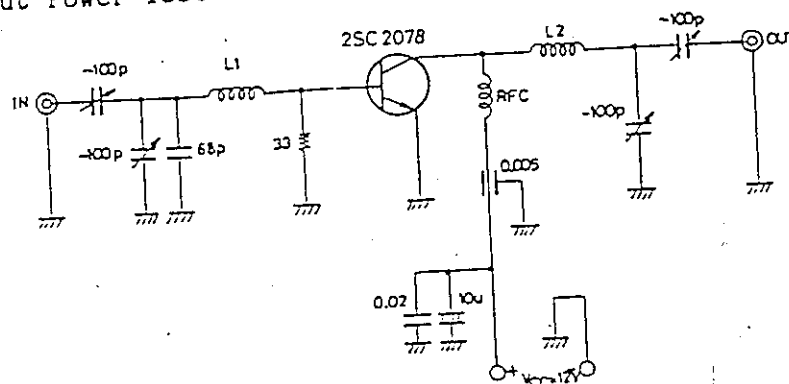
Case Outline 2010A (unit:mm)



G3

4147KI/3145KI/2274ki No.462-1/3

2SC2078 27MHz Output Power Test Circuit



Coil data L1: 0.3mm tinned wire, 9 ϕ 4T
L2: 0.6mm tinned wire, 9 ϕ 4T

RFC 2.2 μ H

