* , 4 2 .> / / x 4 6 4 ! - } â ’ož
Silicon NPN transistor in a DFN1006-3L Plastic Package.

z 9 k z v k —)í D }ož
Low current, Low voltage,HF Product.

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Ã a ? d / Absolute Maximum Ratings(Ta=25 ;)

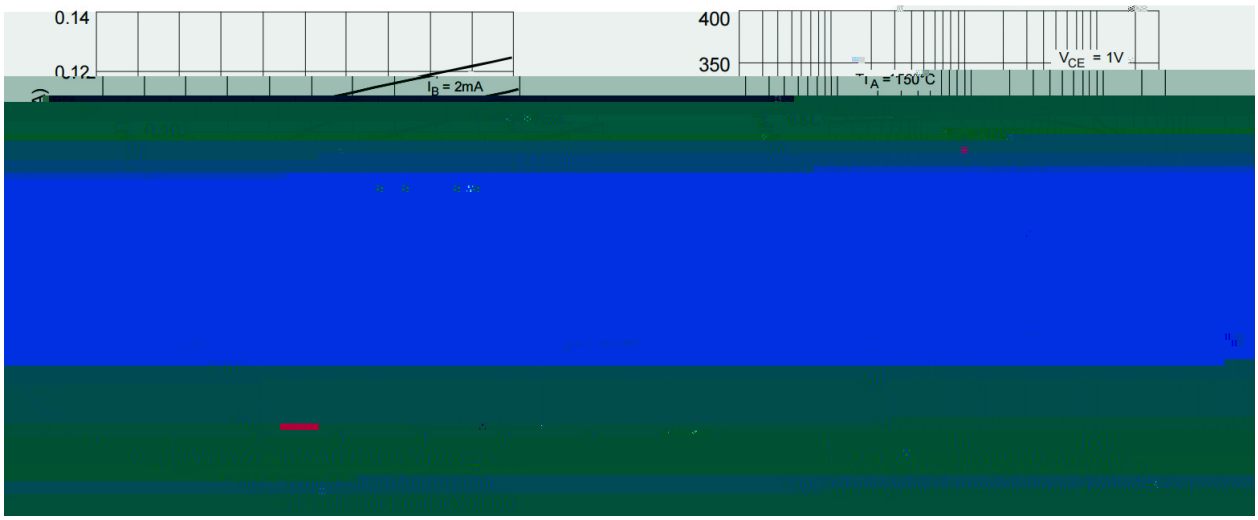
@ ƒ Parameter	… Z Symbol	ƒ › Rating	% y Unit
Collector to Base Voltage	V_{CBO}	60	V
Collector to Emitter Voltage	V_{CEO}	40	V
Emitter to Base Voltage	V_{EBO}	6.0	V
Collector Current	I_C	200	mA
*Collector Power Dissipation	P_C	100	mW
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55 150	
Thermal Resistance, Junction to Ambient	R_{thJA}	310	/W
Thermal Resistance, Junction to Lead	R_{thJL}	120	/W

* É x ¨ PCB á Mount on the PCBA

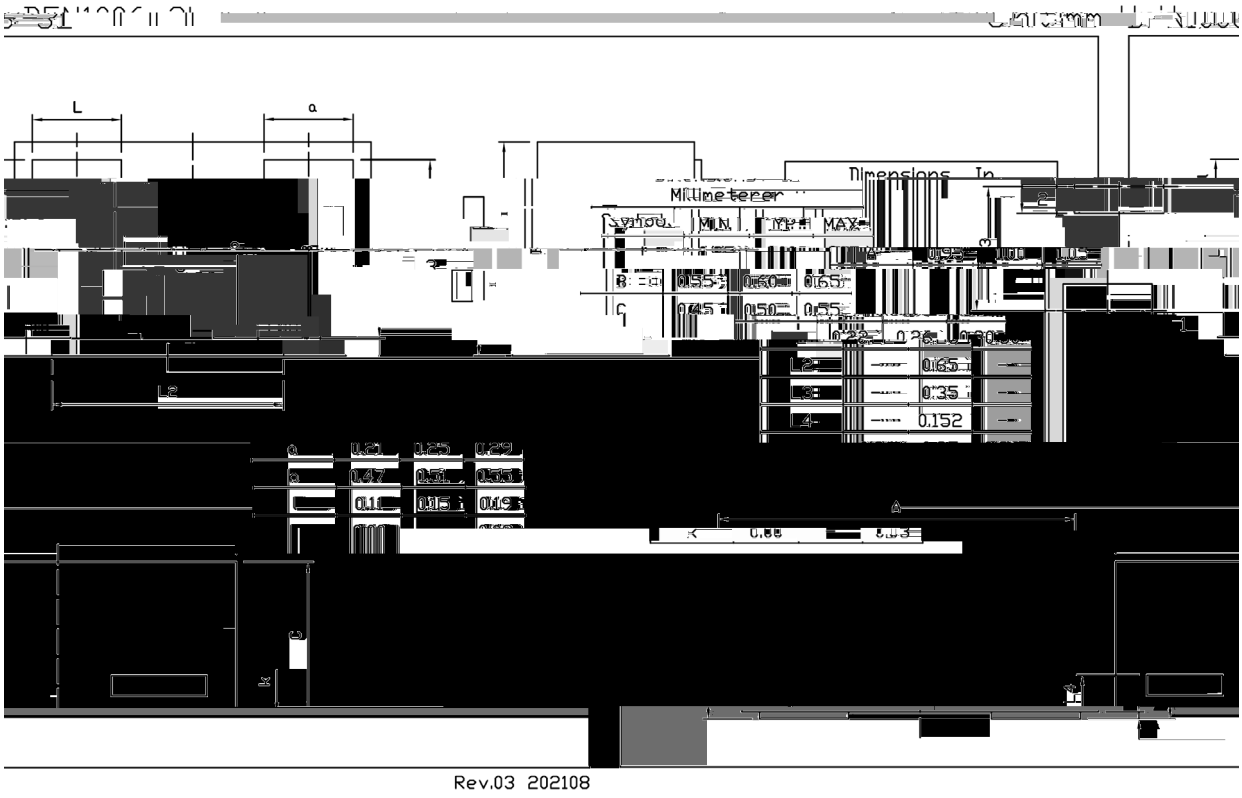
Ô4ì × ? d / Electrical Characteristics(Ta=25 ;)

@ ƒ Parameter	… Z Symbol	y ¡ Ú ^ Test Conditions	Â 4 › Min	Á º › Typ	Â Ý › Max	% y Unit
Collector to Base Breakdown Voltage	V_{CBO}	I_C=10 A I_E=0	60			V
Collector to Emitter Breakdown Voltage	V_{CEO}	I_C=1.0mA I_B=0	40			V
Emitter to Base Breakdown Voltage	V_{EBO}	I_E=10 A I_C=0	6.0			V
Collector Cut-Off Current	I_{CBO}	V_{CB}=30V I_E=0			0.05	A
Emitter Cut-Off Current	I_{EBO}	V_{EB}=3.0V I_C=0			0.05	A
DC Current Gain	$h_{FE(1)}$	V_{CE}=1.0V I_C=10mA	100		300	
	$h_{FE(2)}$	V_{CE}=1.0V I_C=100mA	30			
	$h_{FE(3)}$	V_{CE}=1.0V I_C=50mA	60			
	$h_{FE(4)}$	V_{CE}=1.0V I_C=1.0mA	70			
	$h_{FE(5)}$	V_{CE}=1.0V I_C=0.1mA	40			
Collector-Emitter Saturation Voltage	$V_{CE(sat)(1)}$	I_C=10mA I_B=1.0mA			0.2	V
	$V_{CE(sat)(2)}$	I_C=50mA I_B=5.0mA			0.3	V
Base-Emitter Saturation Voltage	$V_{BE(sat)(1)}$	I_C=10mA I_B=1.0mA	0.65		0.85	V
	$V_{BE(sat)(2)}$	I_C=50mA I_B=5.0mA			0.95	V
Transition Frequency	f_T	V_{CE}=20V I_C=10mA f=100MHz	300			MHz
Output Capacitance	C_{ob}	V_{CB}=5.0V f=1.0MHz			4.0	pF
Storage Time	t_{stg}	V_{CC}=3.0V I_C=10mA I_{B1}=-I_{B2}=1.0mA			200	ns
Fall Time	t_f	V_{CC}=3.0V I_C=10mA I_{B1}=-I_{B2}=1.0mA			50	ns
Delay Time	t_d	V_{CC}=3.0V V_{BE}=0.5V I_C=10mA I_{B1}=1.0mA			35	ns
Rise Time	t_r	V_{CC}=3.0V V_{BE}=0.5V I_C=10mA I_{B1}=1.0mA			35	ns
Input Capacitance	C_{ib}	V_{EB}=0.5V f=1.0MHz			8.0	pF

Ô ? d • Ž ¢ / Electrical Characteristic Curve



Ø ¤ =) ¢ / Package Dimensions



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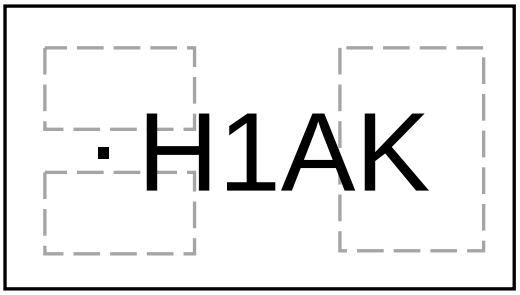
, M y ƒ / Marking Instructions



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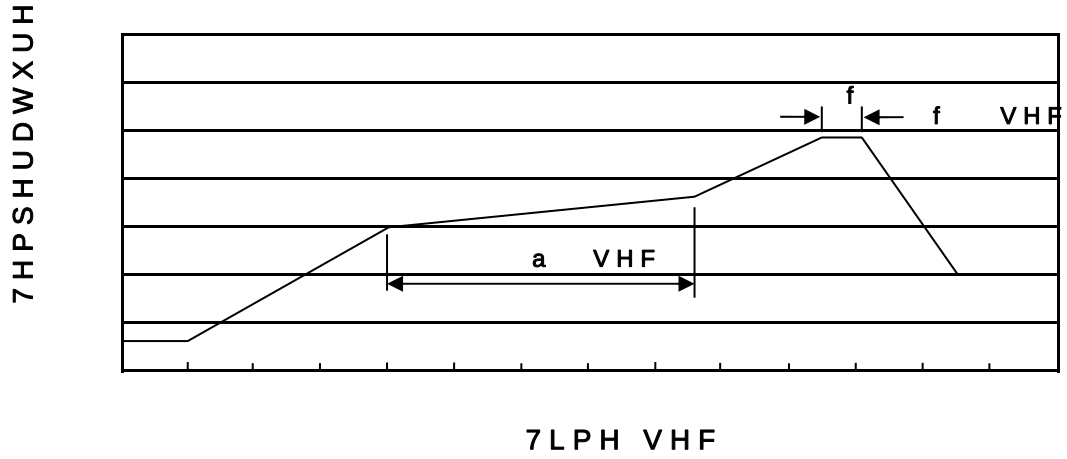
. y	¸ [W A
1AK y	º Z W A

Note:

· y	Identify
. y	Company Code
1AK y	Product Type Code

š WD t … • Ž ¢ (x /) / : K S V K X G Z [X K 6 X U L O R K L U X / 8 8 K L R U] 9 U R J K X O T M 6



7 L P H V H F

ª ¢ y

Note:

1o• Ä ½ “ † 150 ½180 - k ž • 60 ½90sec;

1.Preheating:150~180 - , Time:60~90sec.

2o• Q › “ † 245 r5 - k ž • 4 Ò 5 r0.5sec;

2.Peak Temp.:245 r5 - , Duration:5 r0.5sec.

3o•D N ò i Ò 0 , † 2 ½10 - /sec.

3. Cooling Speed: 2~10 - /sec.

ÂD /Cã p ¯ »] / Resistance to Soldering Heat Test Conditions

“ † y 260 r5 - ž • y 10 r1 sec. Temp.:260±5 Time:10±1 sec

G P á / Packaging SPEC.

2 & x / REEL

Package Type 7>û ˜ E	Units ;>û ¦H					Dimension ;>û p . (unit Æmm³)		
	Units/Reel / --	Reels/Inner Box -- /-	Units/Inner Box /-	Inner Boxes/Outer Box - /1ç	Units/Outer Box /1ç	Reel	Inner Box×	Outer Box1ç
DFN1006-3L	10,000	10	100,000	6	600,000	7 s ×8	180×120×180	390×385×205

„ Ð y ƒ / Notices