| 寶 | 號 |
|-----|-------|
| CUS | COMER |

MARITEX

HF ROHS COMPLIANT

承 認 書

SPECIFICATION FOR APPROVAL

Customer Approved Status 客戶承認範圍

| FULLY APPROVED | PARTILLY APPROVED | REVISE APPROVED |
|----------------|-------------------|-----------------|
| (全部承認) | (部份承認) | (修訂承認) |
| | | |
| | | |
| | | |
| Drawn by | Checked by | Approved by |
| 薄要胶 | 吴明琛 | 美炳 |



KING CORE ELECTRONICS INC.

NO 269, Nanfong Rd., Pingjhen City, Taoyuan County Taiwan

Tel: 886-3-4698855 Fax: 886-4691395 Website:http://www.kingcore.com.tw E-mail: kc@mail.kingcore.com.tw

修訂履歷 REVISION RESUME

| 日期 DATE | 版次 VERSION | | J目的 RPOSE | 修訂內容 REVISION DES | | 備註 REMARK |
|---------------|---------------|----------------|--------------|----------------------|---------------------|------------------|
| 2021/5/4 | A | 首次送 INITIAL | 羕 RELEASE | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| 製作 DRAWN 決 | BY: 要获 | | 確認 CHECI | KED BY: 吳明琛 | 承認 APPROVED B 美力 | Y: 丙 <u>動</u> |

SPECIFICATION FOR APPROVAL

| CUSTOMER: | MARITEX | | CU | ST.P/N: | | |
|---------------------------------|--------------------|-------------------------|----------------------|------------------|----------|--|
| ORDERING CODE: BSF0603SMSE330MT | | | K.C.P/N: | | | |
| (1) SHAPE: | | | A | 6.6±0.2 | mm | |
| 1 | | | В | 7.0±0.3 | mm | |
| < XXX | | | С | 2.8±0.2 | mm | |
| <u> </u> | | | D | 3.0REF | mm | |
| В | C | E | E | 1.6REF | mm | |
| | | | Н | 3.5REF | mm | |
| | | | I | 2.35REF | mm | |
| | | | J | 3.7REF | mm | |
| | I J I | | | | | |
| Р | AD LAYOUT UNIT: mm | | | | | |
| (2)ELECTRICAL | REQUIREMENTS: | | (3) TEST CONDITIONS: | | | |
| 1. L:33±20%uH | I(100KHz/1V) | | 1. L:HP4284A | | | |
| 2. RDC:270m Ω (max) | | | | 2. RDC:HIOKI3540 | | |
| 3. Isat:2.5A(TY | (P) | 3. IDC:HP4284A+HP42841A | | | | |
| IDC:2.0A(TY | ΥP) | | | | | |
| Isat Inductanc | e Drop 30% at typ | | | | | |
| IDC: △T=40° | °C typ | | | | | |
| | | | | | | |
| (4)PACKING | | | (5) A | APPEARANCE | | |
| IN BU | LK VACUUM | INSERTION | | | | |
| PCS/BAG* | BAGS/INNER BOX | BOXES/CARTON = PCS | | | | |
| PCS/PLATE* | PLATES/CARTON= | PCS | | | | |
| PCS/TRAY* | TRAYS/CARTON= | PCS | | | | |
| 1000 PCS/REEL* | REELS/CARTON= | PCS | | | | |
| (6)REMARK: | | | App | proved by 美炳塾 | | |
| | | | Che | ecked by 美明绿 | | |
| | | | Dra | wn by 薄要联 | 2021/5/4 | |
| | | | DW | /G.NO. 20209002. | A | |

TEST DATA FOR PREPRODUCTION SAMPLES

| CUSTOMER | | MARITEX | | | CUST. P/N | | |
|-----------------|------------------|----------------|----------|---|-----------|--------------|-------------------|
| ORDERING CODE | BSF0603SMSE330MT | | K.C. P/N | | | | |
| TEMP. | 24 °C | RH | 69 | % | DWG.NO. | 20209002 | 4 |
| WIRE | | WINDING | | | Q'TY | 5PCS | |
| Test Instrument | CS . | | | • | | 10= 02 | |
| Meas. Item. | L (uH) | RDC (m \Omega) | | | | | |
| Specification | 33±20% | 270max | | | | | |
| Test Freq. | 100 KHz/1V | | | | | | |
| sample#1 | 31.6 | 193 | | | | | |
| sample#2 | 30.2 | 190 | | | | | |
| sample#3 | 32.3 | 188 | | | | | |
| sample#4 | 31.5 | 190 | | | | | |
| sample#5 | 31.4 | 196 | | | | | |
| sample#6 | | | | | | | |
| sample#7 | | | | | | | |
| sample#8 | | | | | | | |
| sample#9 | | | | | | | |
| sample#10 | | | | | | | |
| X | 31.4 | 191 | | | | | |
| R | 2.1 | 8 | | | | | |
| REMARK: | | | | | | Approved by: | 美炳 <u></u> |
| | | | | | | Checked by: | 吴明琛 |
| | | | | | | Drawn by: | 藻要 |

KING CORE ELECTRONICS INC.



KING CORE ELECTRONICS INC.

Tel: 886-3-4698855 Fax: 886-3-4691395 Web Site:http://www.kingcore.com.tw e-mail: kc@mail.kingcore.com.tw

RELIABILITY TEST – BS / BSF SERIES

1-1 Mechanical Performance

| No | Item | Specification | Test Method | | | |
|-------|-------------------------|-----------------------------|---|--|--|--|
| 1-1-1 | Vibration | Appearance: No damage | Test device shall be soldered on the substrate | | | |
| | | L change: within±20% | Oscillation Frequency: 10 to 55 to 10Hz for 1min | | | |
| | | | Amplitude: 1.5mm | | | |
| | | | Time: 2hrs for each axis (X, Y & Z), total 6hrs | | | |
| 1-1-2 | Resistance to Soldering | Appearance: No damage | Preheat:150°C,60 seconds | | | |
| | Heat | | Solder:temperature:260±5°C | | | |
| | | | 260°C Preheating Dipping Natural cooling 150°C 60 seconds 5±0.5 seconds | | | |
| 1-1-3 | Solderability | | Preheat:150°C,60 seconds | | | |
| | | 90% covered with new solder | Solder:temperature:245±3°C | | | |
| | | coating | | | | |
| | | | Preheating Dipping Natural cooling 150°C 60 seconds 4±1 seconds | | | |

1-2 Environmental Performance

| No | Item | Specification | | | Test Metl | ıod |
|-------|---------------|-----------------------|-----|------------|-------------------------|-----------------|
| 1-2-1 | Thermal Shock | Appearance: No damage | One | e cycle: | | |
| | | L change: within±20% | | Step | Temperature (°C) | Time (min) |
| | | | | 1 | -40±3 | 30 |
| | | | | 2 | 125±2 | 30 |
| | | | Tot | al: 96cycl | es | |
| | | | Me | asured aft | er exposure in the roor | n condition for |

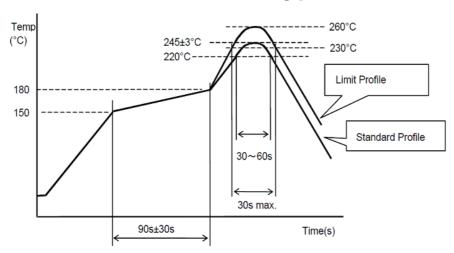


KING CORE ELECTRONICS INC.

Tel: 886-3-4698855 Fax: 886-3-4691395 Web Site:http://www.kingcore.com.tw e-mail: kc@mail.kingcore.com.tw

| 1-2-2 Humidity Resistance | Temperature: 85±2°C | |
|---------------------------|---|--|
| | Relative Humidity: 90 ~ 95% | |
| | Time: 96hrs | |
| | Measured after exposure in the room condition for 24hrs | |
| 1-2-3 High Temperature | Temperature: 125±3°C | |
| Resistance | Time: 96hrs | |
| | Measured after exposure in the room condition for 24hrs | |
| 1-2-4 Low Temperature | Temperature: -40±3°C | |
| Resistance | Relative Humidity: 0% | |
| | Time: 96hrs | |
| | Measured after exposure in the room condition for 24hrs | |

1-3 Recommended Reflow Soldering profile



| | Standard Profile | Limit Profile |
|------------------|---------------------|----------------------|
| Pre-heating | 150~180°C 、90s±30s | |
| Heating | above 220°C、30s~60s | above 240°C、30s max. |
| Peak temperature | 245±3°C | 260°C、10s |
| Cycle of reflow | 2 times | 2 times |

Note

- 1. Operating Temperature Range: -40° C to $+125^{\circ}$ C (including self-heating.)
- 2. Storage conditions
 - Products should be storage in the warehouse on the following conditions.

Temperature : $0 \sim 40^{\circ}$ C

Humidity : $55 \sim 70\%$ relative humidity

No rapid change on temperature and humidity

3. Storage Temperature Range:- 40° C to + 85° C (For products in unopened tape package 0° C to + 40° C)

KING CORE ELECTRONICS INC.

Tel: 886-3-4698855 Fax: 886-3-4691395 Web Site:http://www.kingcore.com.tw e-mail: kc@mail.kingcore.com.tw

1-4 Caution for use

1-4-1. Limitation of Applications

Please contact us before using our products for the applications listed below which require especially high reliability for the prevention of defects which might directly cause damage to the third party's life, body or property.

- (1) Aircraft equipment
- (2) Aerospace equipment
- (3) Undersea equipment
- (4) Power plant control equipment
- (5) Medical equipment

- (6) Transportation equipment (vehicles, trains, ships, etc.)
- (7) Traffic signal equipment
- (8) Disaster prevention / crime prevention equipment
- (9) Data-processing equipment
- (10) Applications of similar complexity and / or reliability Requirements to the applications listed in the above.