Gulf Semiconductor(shandong) Co., Ltd.

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Tel : 0531-83130301 Fax : 0531-83130303

APPROVAL COVER SHEET

REF NO. : Qsd-121001121

CUSTOMER'S NAME:	**Qsida**
CUSTOMER'S PART NO. :	
MANUFACTURER'S PART NO. :	**1N4007G-E**
CUSTOMER'S REFERENCE:	
INFORMATION ATTACHED	1. Specification 2 p.g. 2. Characteristic curve 1 p.g 3. Internal construction 1 p.g. 4. High Reliability Test 1 p.g. 5. Packaging Details 6 p.g.

CUSTOMER SIGN FOR APPROVAL

M.K. King
SUBMITTED BY

ALTERNATION RECORD				
# No	**Details**	**Pre.**	**App.**	**Date**

CUSTOMER'S NAME: **Qsida** **1N4007G-E**	**HOUSE NO. :**

1. PART NAME : 1N4007G-E

2. FEATURE

   General Glass Passivated Junction Rectifier

3. MECHANICAL DATA

   Case: DO-41 molded plastic over passivated chip， Halogen Free Epoxy

   Terminals: plated axial leads, solderable per MIL-STD-202E, Method 208C

   Lead Material: pure copper, plated with 100% Tin, 5um thick min

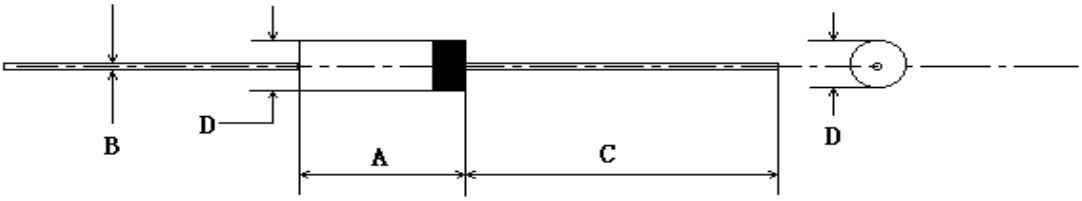
   Polarity: Color band denotes cathode end

   Mounting position: Any

   Weight: 0.340mg/pcs

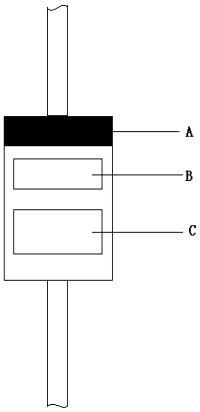
4. DIMENSION

DO-41



A: 4.1~5.2 mm **B**: 0.71~0.86 mm DIA **C**: 25.4 mm MIN **D**:2.0~2.7 mm

5. MARKING



A: **CATHODE BAND**

B: **TYPE NAME**

1N4007G

C: **LOGO**

XXXE

X XX

year week

ex： year：0=2010，1=2011

week：Actual week code 01-53

1N4001G-E THRU 1N4007G-E

GLASS PASSIVATED JUNCTION RECTIFIER

VOLTAGE: 50 TO 1000V CURRENT: 1.0A

GULF SEMI

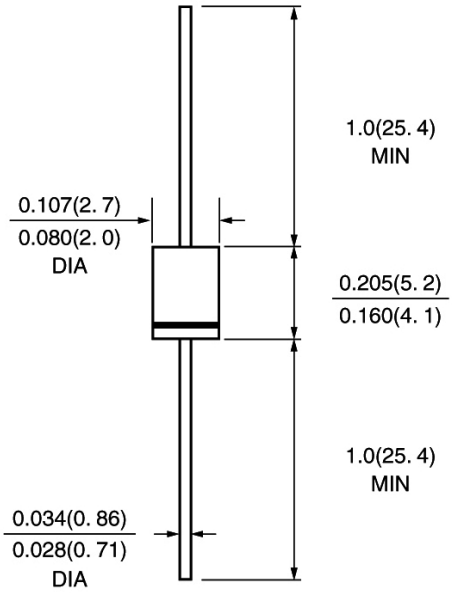
FEATURE

Molded case feature for auto insertion
High current capability
Low leakage current
High surge capability
High temperature soldering guaranteed
250℃ /10sec/0.375" lead length at 5 lbs tension
Glass Passivated chip
Halogen Free

MECHANICAL DATA

Terminal: Plated axial leads solderable per MIL-STD 750, method 2026
Case: Molded with UL-94 Class V-0 Halogen Free Epoxy
Polarity: color band denotes cathode
Mounting position: any

DO – 41\DO – 204AL



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(single-phase, half-wave, 60HZ, resistive or inductive load rating at 25℃, unless otherwise stated)

	SYMBOL	1N4001G-E	1N4002G-E	1N4003G-E	1N4004G-E	1N4005G-E	1N4006G-E	1N4007G-E	units
Maximum Recurrent Peak Reverse Voltage	Vrrm	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	Vrms	35	70	140	280	420	560	700	V
Maximum DC blocking Voltage	Vdc	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current 3/8" lead length at Ta =75℃	If(av)	1.0							A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	Ifsm	30.0							A
Maximum Instantaneous Forward Voltage at rated forward current	Vf	1.1							V
Maximum full load reverse current full cycle at T_L =75℃	Ir(av)	30.0							μA
Maximum DC Reverse Current Ta =25℃ at rated DC blocking voltage Ta =100℃	Ir	5.0 50.0							μA
Typical Junction Capacitance (Note 1)	Cj	15.0							pF
Operating Temperature (Note 2)	Rth(ja)	50.0							℃/W
Storage and Operation Junction Temperature	Tstg, Tj	-55 to +150							℃

Note:
1. Measured at 1.0 MHz and applied voltage of 4.0Vdc
2. Thermal Resistance from Junction to Ambient at 0.375" lead length, P.C. Board Mounted

PART NAME: 1N4007G-E

Fig. 1 – Forward Current Derating Curve

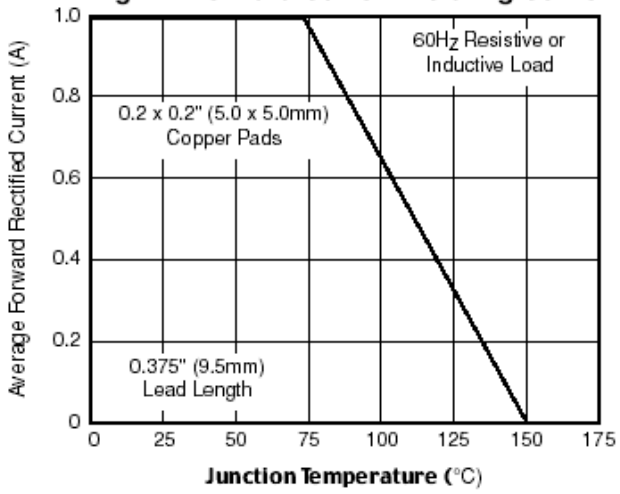


Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current

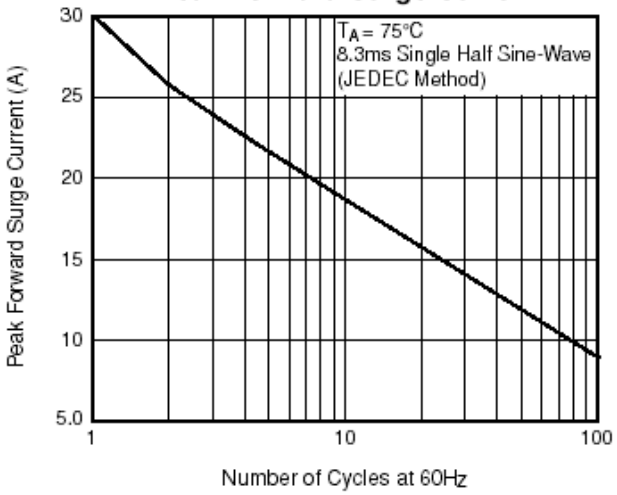


Fig. 3 – Typical Instantaneous Forward Characteristics

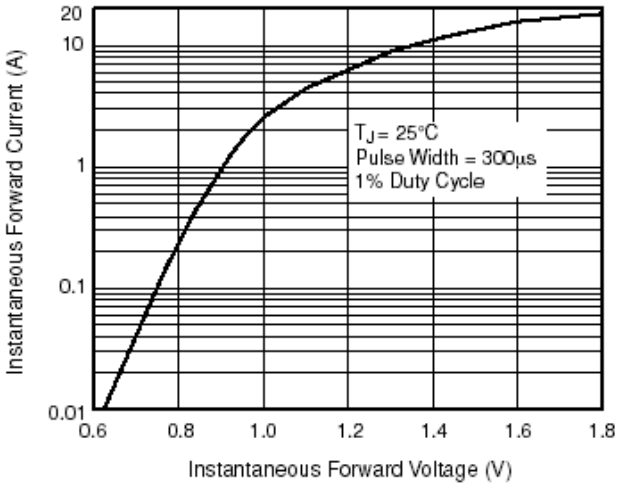


Fig. 4 – Typical Reverse Characteristics

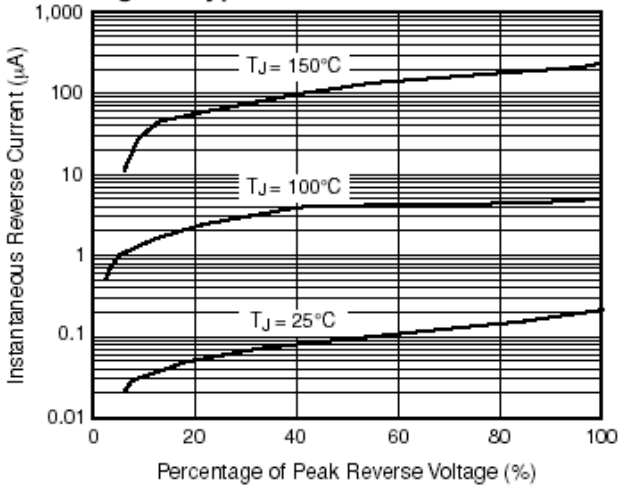


Fig. 5 – Typical Junction Capacitance

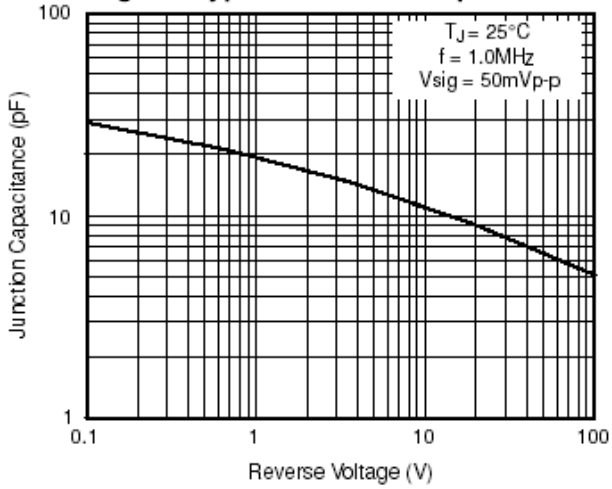
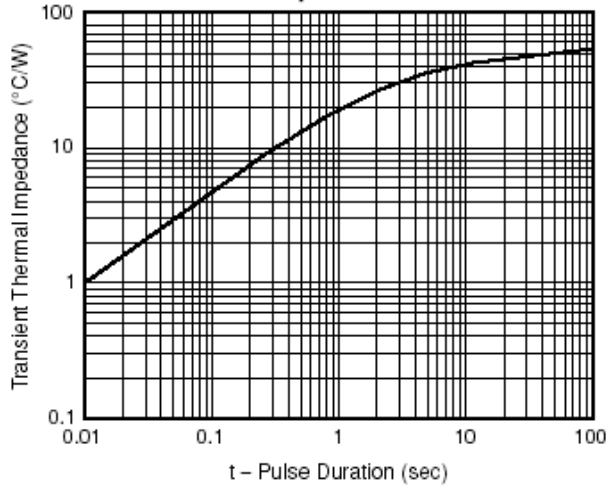
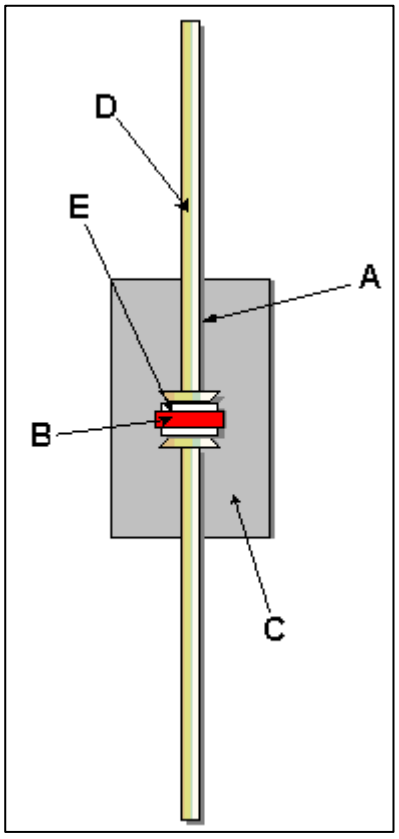


Fig. 6 – Typical Transient Thermal Impedance





A: **COPPER LEADS**

B: **SQUARE GPP DICE**

C: **UL94 GLASS V-O EPOXY**

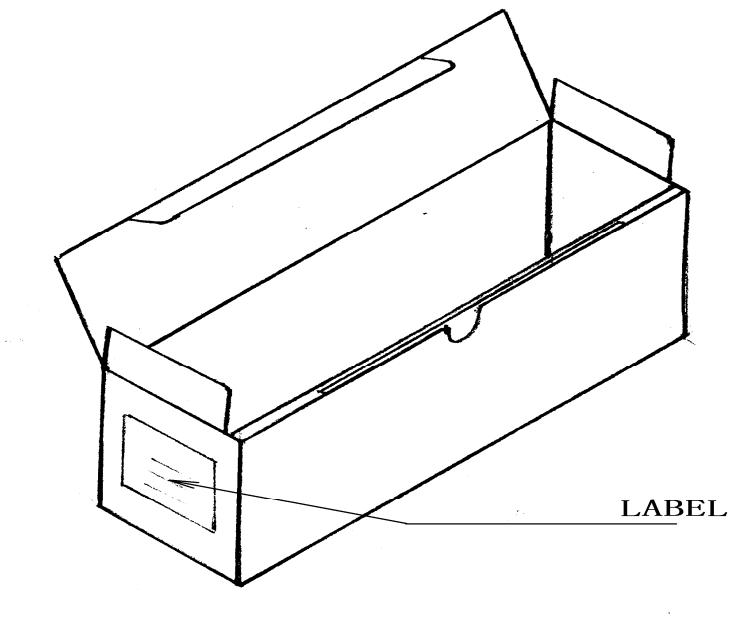
D: **100% TIN PLATING, 5um THICKNESS**

E: **SOLDER SHEET**

AMMO BOX PACKAGING:

Units Per Box (pcs)	Tape Spacing (mm)	Box Size (cm)	Gross Weight (kg)
3000	52	25.3×9.2×9.7	1.14

BOX:



LABEL:

GULF SEMICONDUCTOR LTD.

RoHS

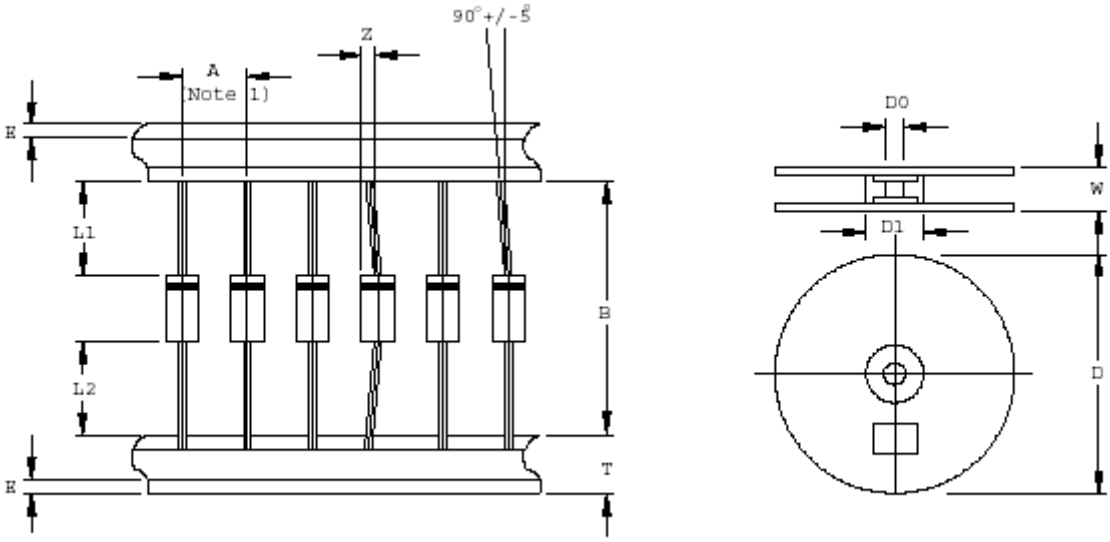
CUST REF:
MFG TYPE:
Qty.:
QC NO.:

TAPE AND REEL PACKAGING:

Units Per Reel (pcs)	Component Spacing (mm)	Tape Spacing (mm)	Approx Gross Weight Per Reel Packed (kg)
5000	5	52	2.38

TAPING SPECIFITION

COMPONENT PITCH A	INNER TAPE PITCH B	COMULATIVE PITCH TOLERANCE
±0.5mm	±1.5mm	
5.0mm	52.0mm	2.0mm/20pitch



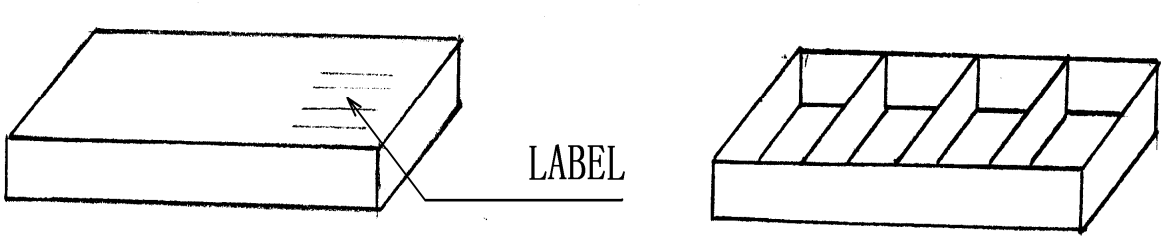
ITEM	SYMBOL	SPECIFICATIONS(m/m)	SPECIFICATIONS(inch)
Component alignment	Z	1.2 max	0.048 max
Tape width	T	6.0±0.4	0.236±0.016
Exposed adhesive	E	0.8 max	0.032 max
Body eccentricity	l L1 - L2 l	1.0 max	0.040 max
Reel outside diameter	D	330.0	13.0
Reel inner diameter	D1	85.7±0.3	3.375±0.012
Feed hole diameter	Do	16.6±0.4	0.655±0.016
Reel width	W	76.0±1.0	2.99±0.040

NOTE: 1. Each component lead shall be sandwiched between tapes for a minimum of 3.2mm(0.126")

BULK PACKAGING:

Box Size (cm)	Quantity (pcs)	Gross Weight (kg)
19.2×12.3×2.1	1000	0.35

BOX:



LABEL:

GULF SEMICONDUCTOR LTD.

RoHS

CUST REF:

MFG TYPE:

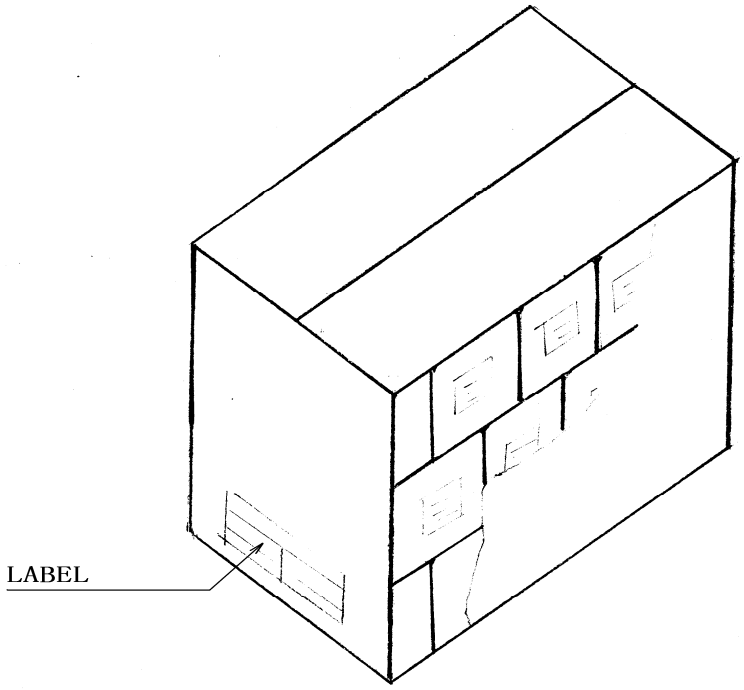
Qty.:

QC NO.:

OUTSIDE CARTON PACKAGING – AMMO BOX PACKING:

Packing	Carton Size (cm)	Carton No.	Carton Weight (kg)	Qty Per Carton (pcs)	Net Weight (kg)	Approx. Gross Weight (kg)
AMMO 52mm	34×27.1×32.7	04N	0.92	30K	11.43	12.35

CARTON:



LABEL:

GULF SEMICONDUCTOR LTD.

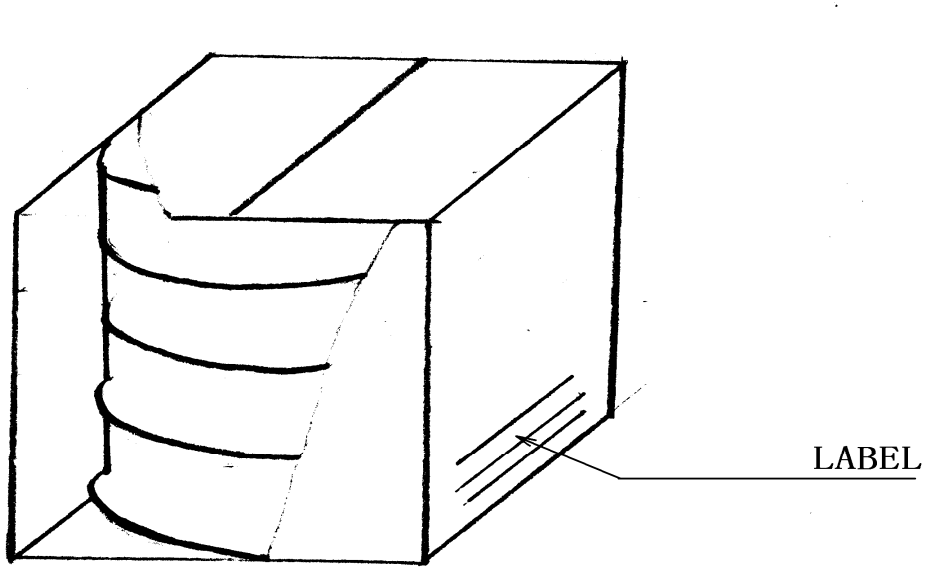
RoHS

CUST REF:
MFG TYPE:
Qty.:
QC NO.:

OUTSIDE CARTON PACKAGING- TAPE AND REEL:

Packing	Carton Size (cm)	Carton No.	Carton Weight (kg)	Qty Per Carton (pcs)	Net Weight (kg)	Approx. Gross Weight (kg)
REEL	**34.1×34×34**	**03N**	**0.80**	**20K**	**9.50**	**10.30**

CARTON:



LABEL:

GULF SEMICONDUCTOR LTD.

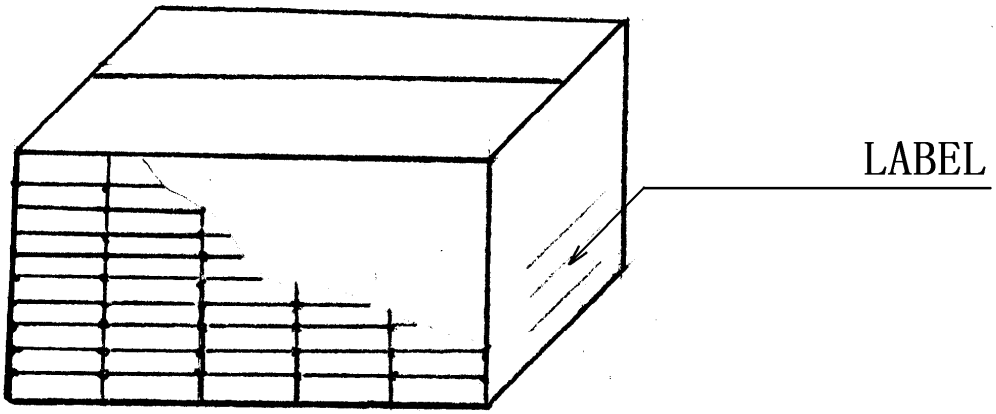
RoHS

CUST REF:
MFG TYPE:
Qty.:
QC NO.:

OUTSIDE CARTON PACKAGING – BULK PACK:

Packing	Carton Size (cm)	Carton No.	Carton Weight (kg)	Qty Per Carton (pcs)	Net Weight (kg)	Approx. Gross Weight (kg)
BULK	**44x21x25**	**01N**	**0.58**	**50k**	**17.50**	**18.08**

CARTON:



LABEL:

GULF SEMICONDUCTOR LTD.

RoHS

CUST REF:
MFG TYPE:
Qty.:
QC NO.: