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**SPECIFICATION FOR APPROVAL**

CUSTOMER	欣统
CERTIFIED MODEL/TYPE	
PART NO.	5.0SMDJ75CA (RoHS+HF)
APPLICATION	
CUSTOMER P/N	
ISSUE DATE	Dec.04,2020
REV. NO.	
REV. DATE	

FOR CUSTOMER APPROVAL	CHECKED BY
	<i>Dan Zhang</i>
	APPROVED BY
	<i>Huaifang Zhang</i>





REVISED RECORD SHEET

REV. NO	REV. DATE	REVISED CONTENT



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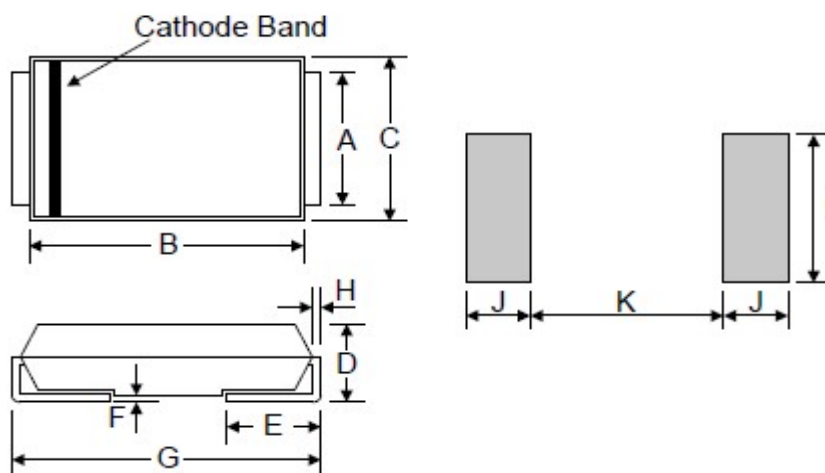
Part Number Code

Example :

5.0SMDJ 75 CA
(1) (2) (3)

No.	Item	Digit	Specification
(1)	Product Type	5.0SMDJ	Thinking Power TVS SMD Type
(2)	Reverse Stand off Voltage (V _{RWM})	75	75=75 V _{RWM}
(3)	Type Code	CA	Bi-directional 5% VBR Voltage Tolerance

Structure and Dimensions



*The Cathode bend for Uni-directional product only.

Item	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	2.90	3.20	0.114	0.126
B	6.60	7.11	0.260	0.280
C	5.59	6.22	0.220	0.245
D	2.06	2.62	0.079	0.103
E	0.76	1.52	0.030	0.060
F	—	0.203	—	0.008
G	7.75	8.130	0.305	0.320
H	0.152	0.305	0.006	0.012
I	3.30	—	0.129	—
J	2.40	—	0.094	—
K	—	4.20	—	0.165

Electrical Characteristics

Peak power dissipation with a 10/1000 μ s waveform : 5000W

Operating junction and storage temperature range : -55~+150 °C

Part No. (Uni)	Part No. (Bi)	Reverse Stand off Voltage	Breakage Voltage VBR @ IT		Test Current	Maximum Clamping Voltage VC @ Ipp	Maximum Peak Pulse Current	Maximum Reverse Leakage IR @VRWM	Marking Code	
		VRWM (V)	Min(V)	Max(V)	IT(mA)	VC(V)	Ipp(A)	IR(μ A)	Uni	Bi
5.0SMDJ12A	5.0SMDJ12CA	12	13.3	14.7	10	19.9	252	800	5PEP	5BEP
5.0SMDJ13A	5.0SMDJ13CA	13	14.4	15.9	10	21.5	233	500	5PEQ	5BEQ
5.0SMDJ14A	5.0SMDJ14CA	14	15.6	17.2	10	23.2	216	200	5PER	5BER
5.0SMDJ15A	5.0SMDJ15CA	15	16.7	18.5	1	24.4	205	100	5PES	5BES
5.0SMDJ16A	5.0SMDJ16CA	16	17.8	19.7	1	26	193	50	5PET	5BET
5.0SMDJ17A	5.0SMDJ17CA	17	18.9	20.9	1	27.6	181	20	5PEU	5BEU
5.0SMDJ18A	5.0SMDJ18CA	18	20	22.1	1	29.2	172	10	5PEV	5BEV
5.0SMDJ20A	5.0SMDJ20CA	20	22.2	24.5	1	32.4	155	5	5PEW	5BEW
5.0SMDJ22A	5.0SMDJ22CA	22	24.4	26.9	1	35.5	141	5	5PEX	5BEX
5.0SMDJ24A	5.0SMDJ24CA	24	26.7	29.5	1	38.9	129	5	5PEZ	5BEZ
5.0SMDJ26A	5.0SMDJ26CA	26	28.9	31.9	1	42.1	119	5	5PFE	5BFE
5.0SMDJ28A	5.0SMDJ28CA	28	31.1	34.4	1	45.4	110	5	5PFG	5BFG
5.0SMDJ30A	5.0SMDJ30CA	30	33.3	36.8	1	48.4	103	5	5PFK	5BFK
5.0SMDJ33A	5.0SMDJ33CA	33	36.7	40.6	1	53.3	93.9	5	5PFM	5BFM
5.0SMDJ36A	5.0SMDJ36CA	36	40	44.2	1	58.1	86.1	5	5PFP	5BFP
5.0SMDJ40A	5.0SMDJ40CA	40	44.4	49.1	1	64.5	77.6	5	5PFR	5BFR
5.0SMDJ43A	5.0SMDJ43CA	43	47.8	52.8	1	69.4	72.1	5	5PFT	5BFT
5.0SMDJ45A	5.0SMDJ45CA	45	50	55.3	1	72.7	68.8	5	5PFV	5BFV
5.0SMDJ48A	5.0SMDJ48CA	48	53.3	58.9	1	77.4	64.7	5	5PFX	5BFX
5.0SMDJ51A	5.0SMDJ51CA	51	56.7	62.7	1	82.4	60.7	5	5PFZ	5BFZ
5.0SMDJ54A	5.0SMDJ54CA	54	60	66.3	1	87.1	57.5	5	5RGE	5RGE
5.0SMDJ58A	5.0SMDJ58CA	58	64.4	71.2	1	93.6	53.5	5	5PGG	5BGG
5.0SMDJ60A	5.0SMDJ60CA	60	66.7	73.7	1	96.8	51.7	5	5PGK	5BGK
5.0SMDJ64A	5.0SMDJ64CA	64	71.1	78.6	1	103	48.6	5	5PGM	5BGM
5.0SMDJ70A	5.0SMDJ70CA	70	77.8	86	1	113	44.3	5	5PGP	5BGP
5.0SMDJ75A	5.0SMDJ75CA	75	83.3	92.1	1	121	41.4	5	5PGR	5BGR
5.0SMDJ78A	5.0SMDJ78CA	78	86.7	95.8	1	126	39.7	5	5PGT	5BGT
5.0SMDJ85A	5.0SMDJ85CA	85	94.4	104	1	137	36.5	5	5PGV	5BGV
5.0SMDJ90A	5.0SMDJ90CA	90	100	111	1	146	34.3	5	5PGX	5BGX
5.0SMDJ100A	5.0SMDJ100CA	100	111	123	1	162	30.9	5	5PGZ	5BGZ
5.0SMDJ110A	5.0SMDJ110CA	110	122	135	1	177	28.3	5	5PHE	5BHE
5.0SMDJ120A	5.0SMDJ120CA	120	133	147	1	193	26	5	5PHG	5BHG
5.0SMDJ130A	5.0SMDJ130CA	130	144	159	1	209	24	5	5PHK	5BHK
5.0SMDJ140A	5.0SMDJ140CA	140	155	171	1	226.8	22.2	5	5PHB	5BHB
5.0SMDJ150A	5.0SMDJ150CA	150	167	185	1	243	20.6	5	5PHM	5BHM
5.0SMDJ160A	5.0SMDJ160CA	160	178	197	1	259	19.3	5	5PHP	5BHP
5.0SMDJ170A	5.0SMDJ170CA	170	189	209	1	275	18.2	5	5PHR	5BHR

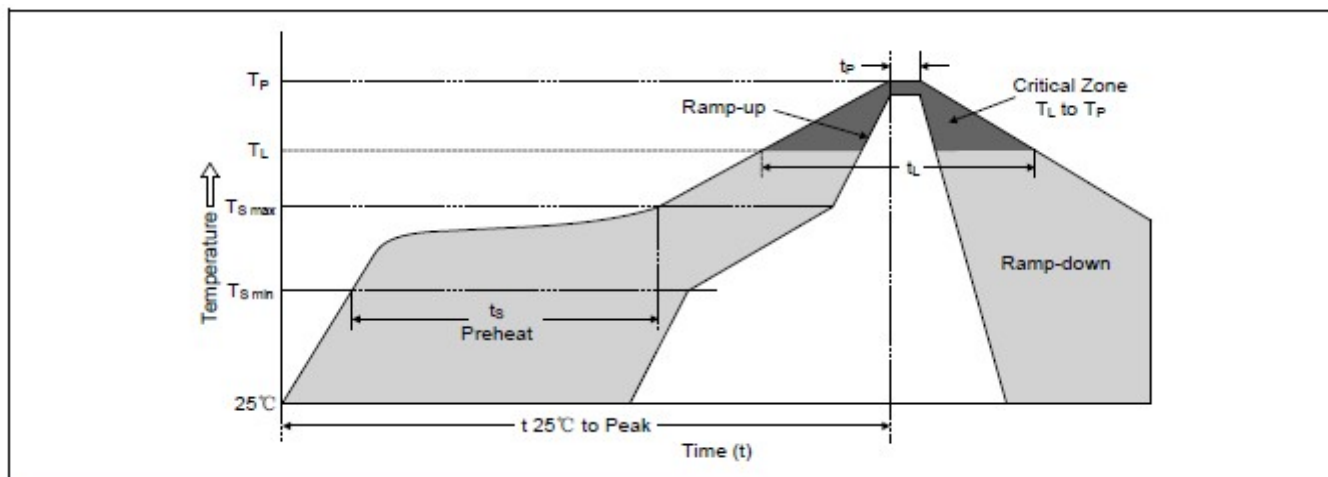


Reliability

Item	Standard	Test conditions / Methods	Specifications
HTRB (High Temp. Reverse Bias Test)	MIL-STD-750D METHOD 1038.3 Method 103	Test Temp. : 150°C Duration 168 hrs with rated VRWM	Electrical properties meet Specifications
PCT (Pressure Cooker Test)	MIL-STD-19500 EAPPENDIX C	Test Temp. : 121 °C Pressure:1.2Kg Duration: 96 hrs	Electrical properties meet Specifications
TCT	MIL-STD-750D METHOD 1051.5	Test Temp. : -55°C ~+150°C 20 cycles	Electrical properties meet Specifications
Forward Surge	MIL-STD-750D METHOD 4066.3	Sine half wave 8.3mS 1 shot IFSM:20A forSMF 40A for SMA/ P4SMA & SMAF 100A for SMB/P6SMB 200A for SMC/1.5SMC 300A for SMD/ 5.0SMD/3KP 400A for 5KP/15KP For Uni-directional product only.	Electrical properties meet Specifications
Soldering Heat	MIL-STD-750D METHOD 2031.2	Test Temp. : 260°C Duration:10 sec 1cycle	Electrical properties meet Specifications

Soldering Recommendation

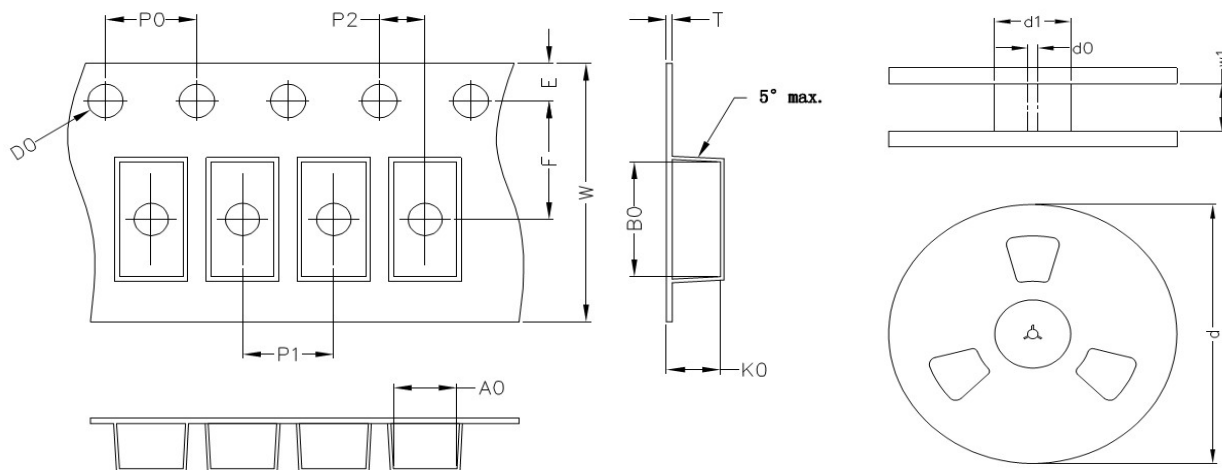
■ IR-reflow soldering profile



Reflow Condition		Lead-free Assembly
Pre heat	-Temperature Min ($T_{S\min}$)	150°C
	-Temperature Max ($T_{S\max}$)	200°C
	-Time (min to max) (t_s)	60-180 seconds
Average ramp-up rate (T_L to T_P)		3°C/second max.
$T_{S\max}$ to T_L -Ramp-up Rate		3°C/second max.
Reflow	-Temperature (T_L) (Liquidus)	217°C
	-Time (min to max) (t_s)	60-150 seconds
Peak Temperature (T_P)		260(+0/-5)°C
Time within 5°C of actual Peak Temperature (t_P)		20-40 seconds
Ramp-down Rate		6°C/second max.
Time 25°C to Peak Temperature		8 minutes max.
Do not exceed		280°C

Packaging

■ Taping Specification



(Unit : mm)

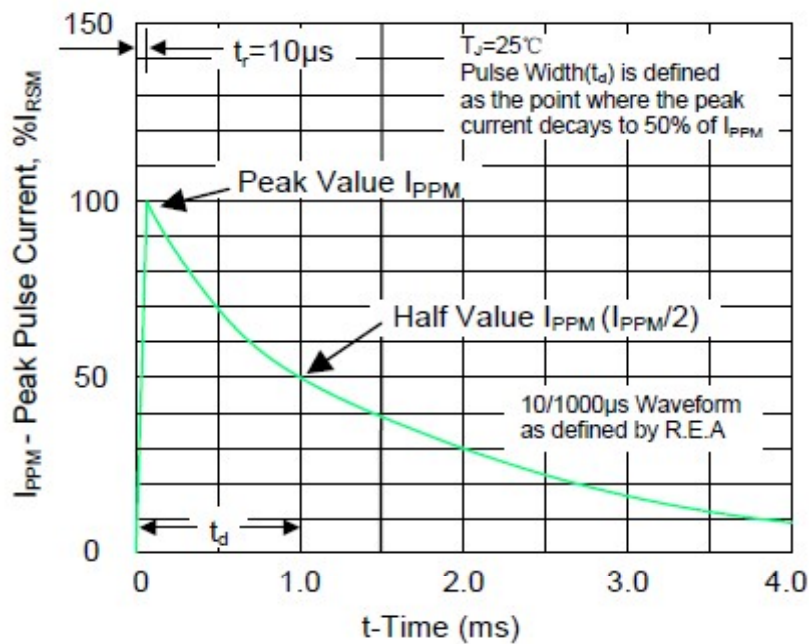
Index	A0	B0	K0	D0	E	F	P0	P1	P2	T	W	d(13")	d1	d0	w1
SMDJ	6.05	8.31	2.54	1.55	1.75	7.5	4	8	2	0.25	16	330	75	13.5	17

Notes: The tolerance of carrier tape and top cover is ± 0.1 mm, the tolerance of reel is ± 2 mm

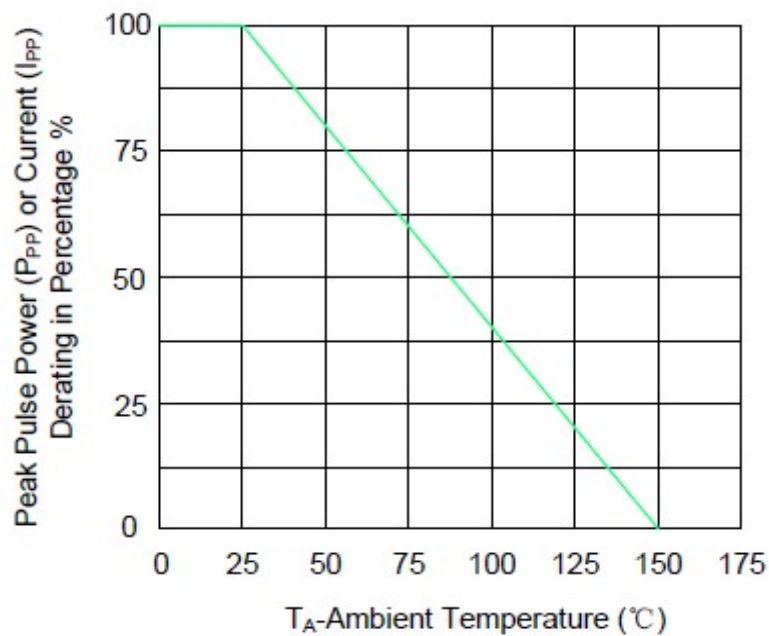
■ Quantity

Series Type	Reel size	Quantity (pcs/reel)
5.0SMDJ	13"	3,000

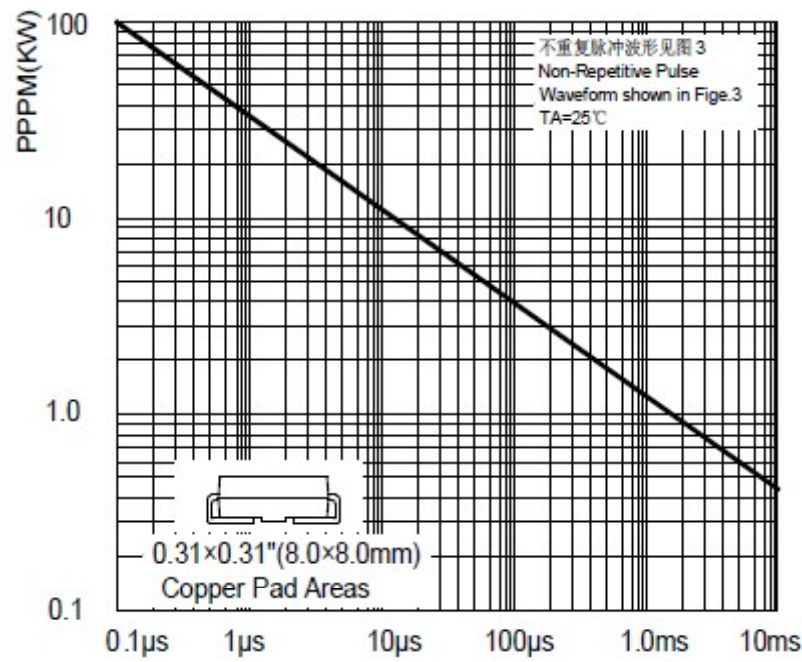
Pulse Waveform



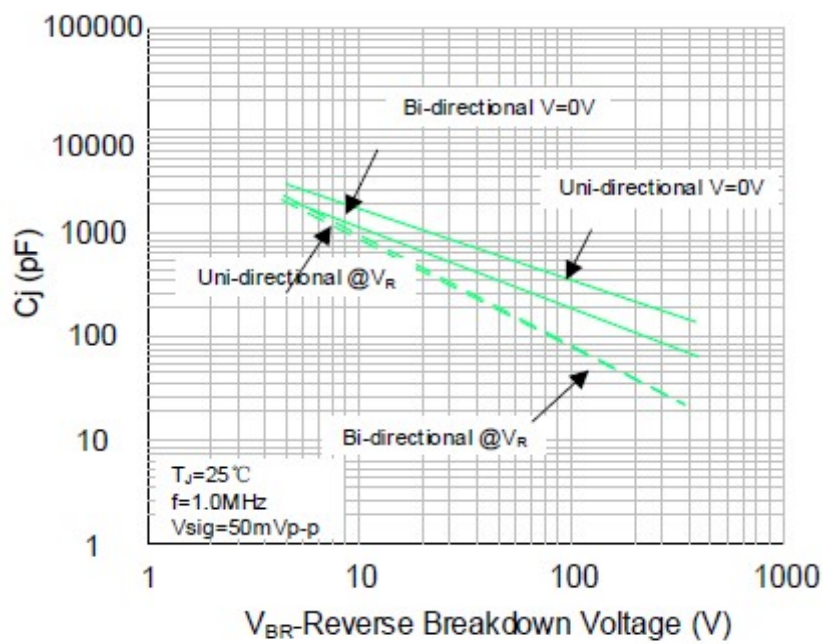
Pulse Derating Curve



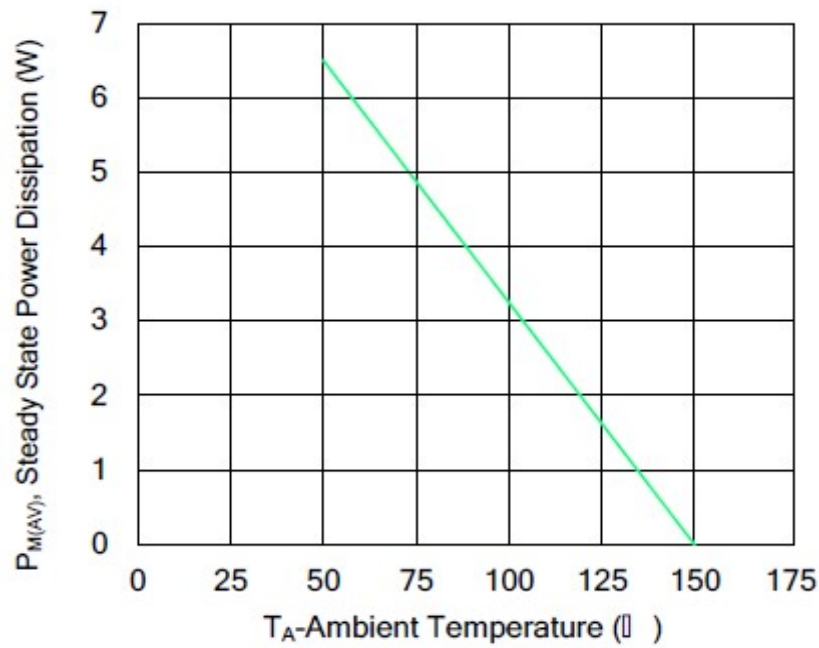
Peak Pulse Power Rating Curve



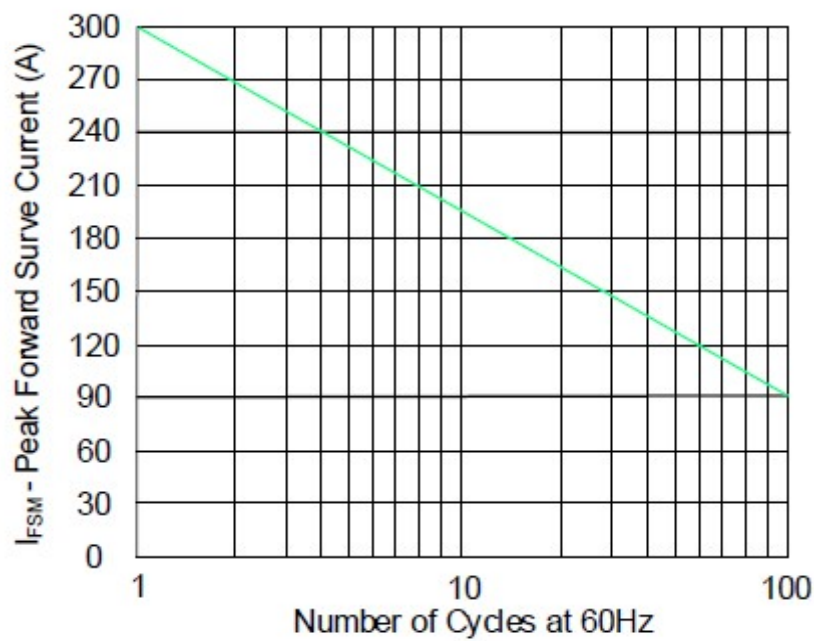
Typical Junction Capacitance



Steady State Power Dissipation



Maximum Non-Repetitive Forward



RoHS Compliant Declaration

We hereby declare that the components delivered to your company are compliant with RoHS directive 2015/863/EU.

Warehouse Storage Conditions of Products

(I) Storage Conditions :

- 1.Storage Temperature : $-10^{\circ}\text{C} \sim +40^{\circ}\text{C}$
- 2.Relative Humidity : $\leq 75\% \text{RH}$
- 3.Keep away from corrosive atmosphere and sunlight.

(II) Period of Storage : 1 year

Certificates

- (1) IATF 16949 certificate
- (2) ISO 9001 certificate

Test Report

- (1) RoHS test report
- (2) Halogen-free test report