



规格承认书
APPROVAL SHEET

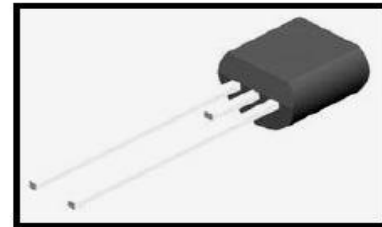
客户名称 CUSTOMERS :			
日期 DATE :			
产品名称 PRODUCT :	半导体放电管		
物料代号 PART NO :	Customer:	版本 REV :	2019. A
	JieShyang:		

客户承认签印 CUSTOMER APPROVED BY	核准 APPROVE	审核 REVIEWED	承办 RESPONSIBLE
APPROVED NO :	ECN :		
MODEL :			
CUSTOMER P/N :			

JIESHYANG ELECTRONICS (WUJIANG) CO., LTD

Features

- ◆ Bi-directional crowbar transient voltage protection
- ◆ High surge capability
- ◆ High off-state impedance
- ◆ Low leakage current
- ◆ Low on-state voltage
- ◆ Short-circuit failure mode



TO-92

Main Application

ELA's thyristor surge protector devices are designed to help protect sensitive telecommunication equipment from the hazards caused by lightning ,power contact,and power induction. These devices enable equipment to comply with various regulatory requirements including GR 1089,ITU K.20,K.21and K.45,IEC 60950,UL 60950,and TIA-968-A(formerly known as FCC Part 68).

Typical application including:

- Central office switching equipment. Analog and digital linecards(xDSL,T1/E1,ISDN.....)
- Customer Premises Equipment (CPE) such as phones, fax machines, modems, POS terminals, PBX systems and caller ID adjunct boxes.
- Primary protection modules including Main Distribution Frames (MDF), building entrance equipment and station protection modules.
- Access network equipment such as remote terminals, line repeaters, multiplexers, cross-connects, WAN equipment, Network Interface Devices (NID).
- Data lines and security systems.
- CATV line amplifiers and power inserters.
- Sprinkler systems.

Electrcal Parameters (Tamb=25°C)

Part Number	VDRM	IDRM	VBO	IBO	VT	IT	Co	IH
	Min.	Max.	Max.	Max.	Max.	Max.	Max.	Min.
	V	uA	V	mA	V	A	pF	mA
EP0080EC	6	5	25	800	4	2.2	100	50
EP0300EC	25	5	40	800	4	2.2	100	50
EP0640EC	58	5	77	800	4	2.2	100	150
EP0720EC	65	5	88	800	4	2.2	100	150
EP0900EC	75	5	98	800	4	2.2	90	150
EP1100EC	90	5	130	800	4	2.2	90	150

Part Number	VDRM	IDRM	VBO	IBO	VT	IT	Co	IH
	Min.	Max.	Max.	Max.	Max.	Max.	Max.	Min.
	V	uA	V	mA	V	A	pF	mA
EP1300EC	120	5	160	800	4	2.2	90	150
EP1500EC	140	5	180	800	4	2.2	85	150
EP1800EC	170	5	220	800	4	2.2	85	150
EP2000EC	180	5	220	800	4	2.2	85	150
EP2300EC	190	5	260	800	4	2.2	80	150
EP2600EC	220	5	300	800	4	2.2	80	150
EP3100EC	275	5	350	800	4	2.2	65	150
EP3500EC	320	5	400	800	4	2.2	65	150
EP3800EC	360	5	460	800	4	2.2	45	150
EP4200EC	400	5	540	800	4	2.2	45	150

Electrical Characteristics

VDRM	Stand-off voltage, is measured at IDRM	IH	Holding current.
VBO	Breakover voltage, is measured at 100V/μs.	IBO	Breakover current.
Co	Off-state capacitance is measured in Vbc=2V@1MHz.	IT	ON-state current
IDRM	Leakage current, is measured at VDRM.	VT	On-state voltage.

Part Numbering System

EP XXXX E C
 (A) (B) (C) (D)

(A) ELA's Semiconductor Surge Arrester

(B) Series:0080,0300...3500,3800,4200etc.

(C) Pake:TO-92

(D) Rating Sure Voltage:A:100A(10/1000μs)

Electrical Characteristics Curves

Figure1 V-I Characteristics

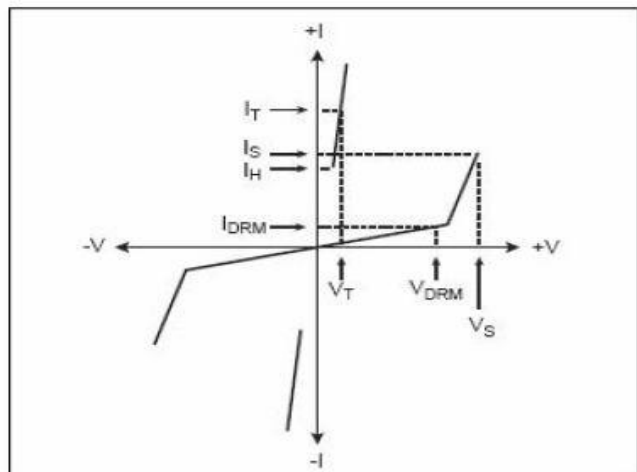


Figure2 tr x td Pulse Wave-form

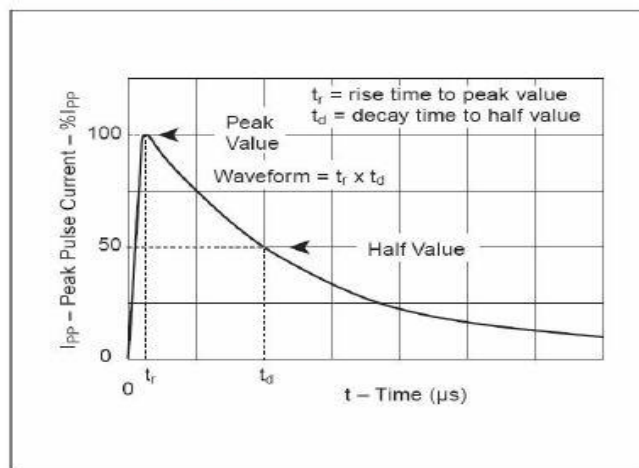


Figure 3 Normalized V_S Change versus Junction Temperature

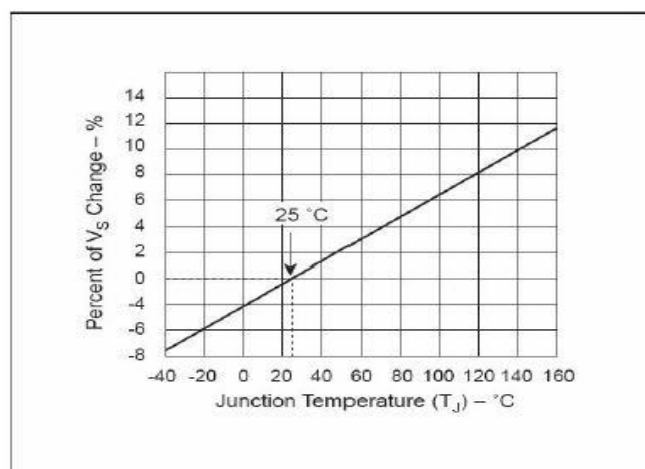
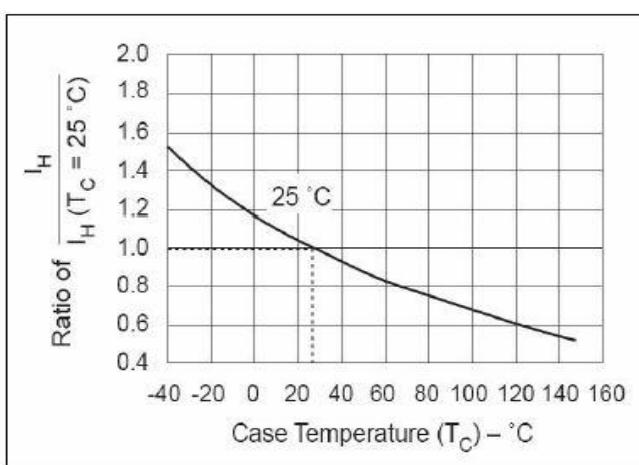



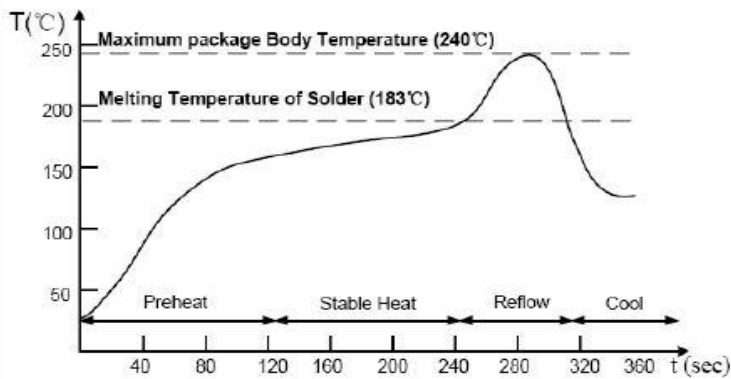
Figure 4 Normalized DC Holding Current



Thermal Considerations

Package	DO-214AA/SMB	Symbol	Parameter	Value	Unit
		T_J	Operating Junction Temperature	-40 to +150	°C
		T_S	Storage Temperature Range	-40 to +150	°C
		$R_{\theta JA}$	Junction to Ambient on printed circuit	90	°C/W

Solder Reflow Recommendations

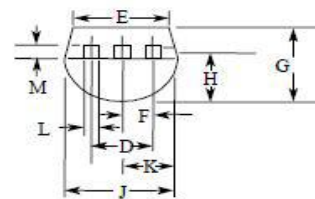
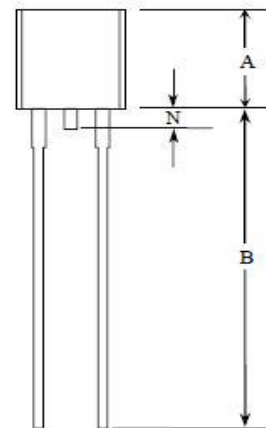


- Recommended reflow methods: IR, vapor phase oven, hot air oven, wave solder.
- The device can be exposed to a maximum temperature of 265°C for 10 seconds.
- Devices can be cleaned using standard industry methods and solvents.

Notes: If reflow temperatures exceed the recommended profile, devices may not meet the performance requirements.

Product Dimensions

Dimension	Inches		Millimeters	
	MIN	MAX		MIN
A	0.176	0.196	4.47	4.98
B	0.5		12.7	
D	0.095	0.105	2.41	2.67
E	0.15		3.81	
F	0.046	0.054	1.16	1.37
G	0.135	0.145	3.43	3.68
H	0.088	0.096	2.23	2.44
J	0.176	0.186	4.47	4.73
K	0.088	0.096	2.23	2.44
L	0.013	0.019	0.33	0.48
M	0.013	0.017	0.33	0.43
N		0.06		1.52



Summary of Packing Options

Package Type	Description	Packing Quantity	Industry Standard
TO-92 	Buck Pack	2000 PCS	N/A