

Snubber capacitor for IGBT(Welding plate)
IGBT 吸收电容器 (焊片式)
■采用标准 reference standards

GB/T17702, IEC 61071

■结构

- 介质: 聚丙烯膜
- 电极: 特殊工艺金属真空蒸发层
- 封装: 阻燃环氧树脂, 符合 UL94 V-0
- 外壳: 阻燃 PBT 塑壳, 符合 UL94 V-0
- 引脚: 镀锡铜片引脚

■典型应用

- 广泛应用于高压高频脉冲采电路中; 损耗小, 内部温升小; 优异的阻燃性能; 适合作为 IGBT 的吸收电容

■特点

- 外观一致性好; 有良好自愈性; 抗湿性强; 能承受脉冲大电流; 寿命长; 耐过电压优良。

■符合 ROHS 标准 conform to ROHS standards
■structure

- Dielectric: Polypropylene film
- Electrode: special craft metal vacuum evaporation layer
- Encapsulation: inflame retardant epoxy resin, conforming to UL94 V-0.
- Shell: inflame retardant PBT plastic shell, conforming to UL94 V-0
- Lead foot: tinned copper sheet lead foot

■typical application

- Widely used in high voltage high frequency pulse circuit; low dissipation; low internal temperature rise; excellent inflame retardant property; suitable as absorption capacitor of IGBT.

■characteristics

- Good appearance consistency, good self-healing property, good humidity resistance. It can withstand large pulse current with long lifetime and excellent ability to withstand overvoltage.

■技术参数 technical parameter

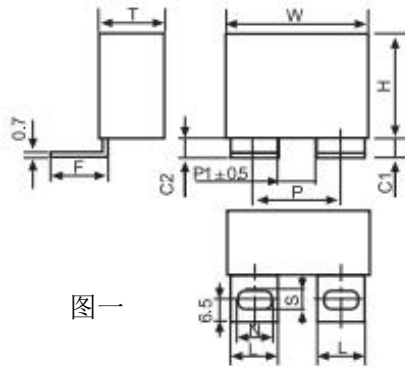
气候条件 Climate condition	-40/+105°C/56d	
额定电压 rated voltage	630Vdc, 850Vdc, 1000Vdc, 1200Vdc, 1600Vdc, 2000Vdc, 2500Vdc, 3000Vdc	
容量误差 allowable tolerance	J—±5% K—±10%	
容量范围 Capacitance range	0.047μF—9.0μF	20°C; 1V 测试电压 testing voltage
耐电压 proof voltage	端子与端子 Terminal to terminal: 1.6 UR; 10S 端子与外壳 Terminal to shell: 2000VAC 5S	无击穿或飞狐 No breakdown or electric arcing
损耗角 dissipation factor	≤0.0010 1KHZ	20°C; 1V 测试电压 testing voltage
绝缘电阻 Insulation resistance	CR≤0.33μF IR≥100000MΩ CR>0.33μF IR≥30000S	充电电压 charging voltage 100V 20°C; 充电 1min 测试后测得 testing time: 1 min later after charging
耐久性试验 durability test	θhs=70°C, 连续 100000 小时 施加电压: 额定电压 θhs=70°C, 100000 hours continuously. voltage imposed: rated voltage	绝缘电阻 IR: ≥额定值的 50% 电容量: ΔC/C≤10% Insulation resistance IR: ≥ 50% of rated value Capacitance: ΔC/C≤10%

注: 可根据客户使用定制容量产品, 具体参数依据承认书资料为准。

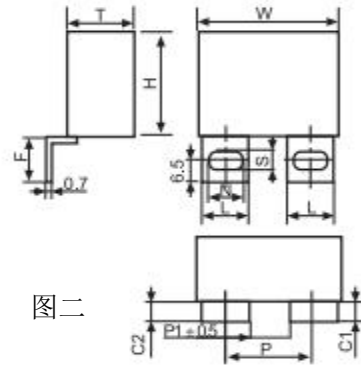
Note: Products capacitance can be customized, specific parameter according to documents.

Snubber capacitor for IGBT(Welding plate) IGBT 吸收电容器 (焊片式)

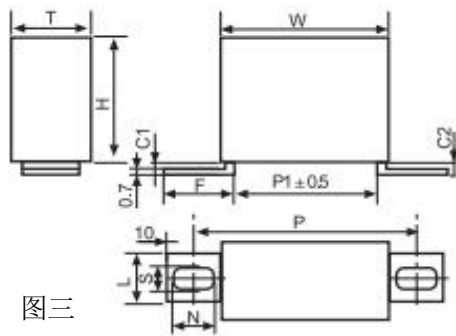
外形图 outline



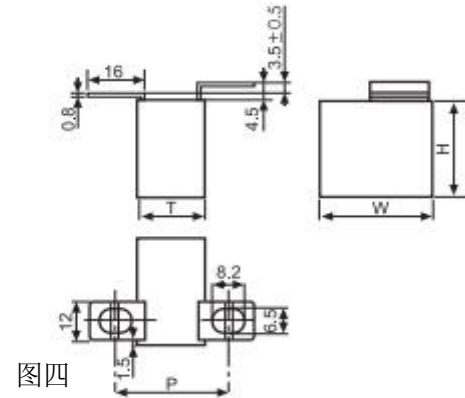
图一



图二



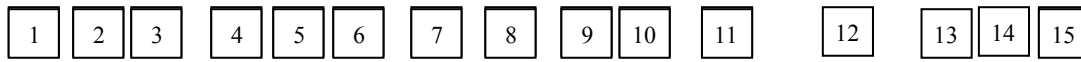
图三



图四

■ C38 产品编码规则 C38 product coding principle

■ 15 位产品代码规定如下： 15-digit product code is specified as follows:



■ 各部分组成内容 Composition and content of various parts

■ 型号代码 (第 1~3 位数) type code (1th to 3th digit)

■ C38 IGBT 吸收电容器 (焊片式)

C38 IGBT absorption capacitor(welding tabs)

■ 标称容量 (第 4~6 位数) Nominal capacitance (4th to 6th digit)

例如 e.g.: 104=10×10⁴ pF=0.1μF

■ 标容量误差代码 (第 7 位数) Nominal capacitance tolerance code (7th digit)

例如 e.g.: J=±5% K=±10%

■ 额定电压 (第 8 位数) rated voltage:(8th digit)

6=630Vdc 8=850Vdc A=1000Vdc B=1200Vdc C=1600Vdc

F=1700Vdc D=2000Vdc S=2500Vdc E=3000Vdc

■ 塑壳代码 (第 9~10 位数) plastic code(9th to 10th digit)

塑壳代码 Plastic shell code	塑壳尺寸 Plastic shell dimension W*T*H	塑壳代码 Plastic shell code	塑壳尺寸 Plastic shell dimension W*T*H	塑壳代码 Plastic shell code	塑壳尺寸 Plastic shell dimension W*T*H	塑壳代码 Plastic shell code	塑壳尺寸 Plastic shell dimension W*T*H
S1	37*15*25	S2	37*16*30	S3	37*20*34	G1	42*20*40
G2	42*24*36	G3	42*24*44	G4	42*30*45	G5	42*42*43
T1	57*25*45	T2	57*30*45	T3	57*35*50	T4	57*45*55

备注：使用涉及到和极限参数有关问题请与圣融达联系

Note: Any questions related to the parameters using, please contact Sincerity.

Snubber capacitor for IGBT(Welding plate)
IGBT 吸收电容器 (焊片式)

■ 安装孔距的选择 (第 11 位数) 见附表 1 所示

Hole distance choice (11th digit) for installation according to attached table 1.

■ 内部识别码 (第 12 位数) internal recognition code(12th digit)

■ 引出端子代码识别码 (第 13~15 位数) 见附表 2 所示

Leading-out terminal identification code (13th~15th digit) according to attached table 2.

■ 安装孔距的选择 (表 1) 单位: mm

Hole distance choice for installation (table 1) unit:mm

额定电压 Rated voltage	焊片引出方式 Lead-out way of welding tabs	塑壳代码 Plastic shell code	安装孔距 P Hole distance for installation	焊片之间的距离 P1 Distance between welding tabs	代码 code
630Vdc 700Vdc 850Vdc 1000Vdc	图一 或 图二 Diagram one or diagram two	S1/S2/S3/ G1/G2/G3/G4/G5	17~25	7	1
			22~30	12	2
		T1/T2/T3/T4	30~38	20	3
			35~43	25	4
	图三 Diagram three	S1/S2/S3 G1/G2/G3/G4/G5 T1/T2/T3/T4	52~62	33	5
			57~67	38	6
			70~80	51	7
1200Vdc 1600Vdc 1700Vdc 2000Vdc 2500Vdc 3000Vdc	图一 或 图二 Diagram one or diagram two	S1/S2/S3/ G1/G2/G3/G4/G5	16~24	6	8
			21~29	11	9
		T1/T2/T3/T4	31~39	21	A
			36~44	26	B
	图三 Diagram three	S1/S2/S3 G1/G2/G3/G4/G5 T1/T2/T3/T4	51~61	32	C
			56~66	37	D
			71~81	52	E
说明 Note	图四的产品需要客户提供定制尺寸后可告知具体的引出端方式。We can tell the customer specific leading-out way after the customer provide customized dimensions, Product in diagram four				

■ 引出端子代码 (表 2) 单位:mm

Lead-out terminal code (table 2) unit:mm

第 13 位(C 高度) 13 th digit(C height)		第 14 位(焊片的引出方式) 14 th digit(lead-out way of welding tabs)		第 15 位 (焊片尺寸) 15 th digit(welding tabs dimension)		说明 (塑壳厚度的尺寸)
代码 code	C1 C2	代码 code	引出图示编码 Lead-out diagram number	代码 code	L*F*N*S	
0	(C1=C2)<3	1	图一	1	14*16*10.2*6.2	—
1	C1=C2=6	2	图二	2	14*22*11.2*6.2	T≥20
		3	图三	6	12*22*11.2*6.2	T<20

Snubber capacitor for IGBT(Welding plate)
IGBT 吸收电容器 (焊片式)
规格尺寸表 specification table

630Vdc/700Vdc(420Vac)									
容量 capacitance	成品编码 Finished product code	外形尺寸 Exterior dimension (mm)			dV/dt (V/us)	Is (A)	ESR @100KHZ (mΩ)	Ls (nH)	Imax 100KHZ@ 70°C(A)
		W±0.5	T±0.5	H±0.5					
0.68	C38684J6S1*#====	37.0	15.0	25.0	900	612	5.0	23	13
1.0	C38105J6S2*#====	37.0	16.0	30.0	900	900	5.0	23	14
1.2	C38125J6S2*#====	37.0	16.0	30.0	900	1080	4.5	23	16
1.5	C38155J6S3*#====	37.0	20.0	34.0	900	1350	4.5	23	17
1.8	C38185J6S3*#====	37.0	20.0	34.0	900	1620	4.5	23	18
2.0	C38205J6G1*#====	42.0	20.0	40.0	600	1200	4.0	29	18
2.2	C38225J6G1*#====	42.0	20.0	40.0	600	1320	4.0	29	18.5
2.5	C38255J6G1*#====	42.0	20.0	40.0	600	1500	4.0	29	19
3.0	C38305J6G3*#====	42.0	24.0	44.0	600	1800	4.0	29	20
3.3	C38335J6G3*#====	42.0	24.0	44.0	600	1982	3.5	29	20
4.0	C38405J6G3*#====	42.0	24.0	44.0	600	2400	3.5	29	21
4.7	C38475J6G4*#====	42.0	30.0	45.0	600	2820	3.5	29	23
5.0	C38505J6G4*#====	42.0	30.0	45.0	600	3000	3.0	19	23.5
6.0	C38605J6G5*#====	42.0	42.0	43.0	600	3600	3.0	29	25
6.5	C38655J6G5*#====	42.0	42.0	43.0	600	3900	3.0	29	26
6.5	C38655J6T2*#====	57.0	30.0	45.0	360	2340	2.5	33	24
7.0	C38705J6T2*#====	57.0	30.0	45.0	360	2520	2.5	33	25
8.0	C38805J6T3*#====	57.0	35.0	50.0	360	2880	2.5	33	27
9.0	C38905J6T3*#====	57.0	35.0	50.0	360	3240	2.5	33	29
850Vdc(450Vac)									
容量 capacitance	成品编码 Finished product code	外形尺寸 Exterior dimension (mm)			dV/dt (V/us)	Is (A)	ESR @100KHZ (mΩ)	Ls (nH)	Imax 100KHZ@ 70°C(A)
		W±0.5	T±0.5	H±0.5					
0.47	C38474J8S1*#====	37.0	15.0	25.0	1200	564	5.0	23	15
0.68	C38684J8S2*#====	37.0	16.0	30.0	1200	816	5.0	23	16
1.0	C38105J8S3*#====	37.0	20.0	34.0	1200	1200	5.0	23	17
1.2	C38125J8S3*#====	37.0	20.0	34.0	1200	1440	5.0	23	17.5
1.5	C38155J8S3*#====	37.0	20.0	34.0	1200	1800	5.0	23	18
1.5	C38155J8G1*#====	42.0	20.0	40.0	750	1125	4.5	29	18.5
2.0	C38205J8G1*#====	42.0	20.0	40.0	750	1500	4.5	29	19
2.2	C38225J8G1*#====	42.0	20.0	40.0	750	1650	4.5	29	19.5
2.5	C38225J8G3*#====	42.0	24.0	44.0	750	1875	4.5	29	20
3.0	C38305J8G3*#====	42.0	24.0	44.0	750	2250	4.5	29	21
3.3	C38335J8G4*#====	42.0	30.0	45.0	750	2475	4.5	29	21.5
4.0	C38405J8G5*#====	42.0	42.0	43.0	750	3000	4.5	29	22
4.0	C38405J8T2*#====	57.0	30.0	45.0	450	1800	4.0	33	23
4.7	C38475J8T2*#====	57.0	30.0	45.0	450	2115	4.0	33	24.5
5.0	C38505J8T2*#====	57.0	30.0	45.0	450	2250	4.0	33	25
6.0	C38605J8T3*#====	57.0	35.0	50.0	450	2700	4.0	33	26
6.5	C38655J8T3*#====	57.0	35.0	50.0	450	2925	4.0	33	27

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Snubber capacitor for IGBT(Welding plate)
IGBT 吸收电容器 (焊片式)

1000Vdc(500Vac)									
容量 capacitance μF	成品编码 Finished product code	外形尺寸 Exterior dimension (mm)			dV/dt (V/us)	Is (A)	ESR @100KHZ (m Ω)	Ls (nH)	Imax 100KHZ@ 70°C(A)
		W \pm 0.5	T \pm 0.5	H \pm 0.5					
0.47	C38474AS1*#===	37.0	15.0	25.0	1300	611	5.0	23	14
0.68	C38684AS2*#===	37.0	16.0	30.0	1300	884	5.0	23	15
0.82	C38824AS2*#===	37.0	16.0	30.0	1300	1066	5.0	23	16
1.0	C38105AS3*#===	37.0	34.0	20.0	1300	1300	4.5	23	17
1.2	C38125AS3*#===	37.0	34.0	20.0	1300	1560	4.5	23	17
1.2	C38125AG1*#===	42.0	20.0	40.0	850	1020	4.5	29	16
1.5	C38155AG1*#===	42.0	20.0	40.0	850	1275	4.5	29	16
2.0	C38205AG3*#===	42.0	24.0	44.0	850	1700	4.5	29	17
2.2	C38225AG3*#===	42.0	24.0	44.0	850	1870	4.0	29	20
2.5	C38255AG4*#===	42.0	30.0	45.0	850	2125	4.0	29	21
3.0	C38305AG4*#===	42.0	30.0	45.0	850	2550	4.0	29	21.5
3.3	C38335AG5*#===	42.0	42.0	43.0	850	2805	4.0	29	22
3.3	C38335AT2*#===	57.0	30.0	45.0	500	1650	4.0	33	20
4.0	C38405AT2*#===	57.0	30.0	45.0	500	2000	4.0	33	21
4.7	C38475AT3*#===	57.0	35.0	50.0	500	2350	4.0	33	22
5.0	C38505AT3*#===	57.0	35.0	50.0	500	2500	4.0	33	23
1200Vdc(600Vac)									
容量 capacitance μF	成品编码 Finished product code	外形尺寸 Exterior dimension (mm)			dV/dt (V/us)	Is (A)	ESR @100KHZ (m Ω)	Ls (nH)	Imax 100KHZ@ 70°C(A)
		W \pm 0.5	T \pm 0.5	H \pm 0.5					
0.33	C38334BS1*#===	37.0	15.0	25.0	1500	495	4.5	23	15
0.47	C38474BS2*#===	37.0	30.0	16.0	1500	705	4.5	23	16
0.68	C38684BS3*#===	37.0	20.0	34.0	1500	1020	4.5	23	17
0.75	C38754BS3*#===	37.0	20.0	34.0	1500	1125	4.5	23	18
0.82	C38824BG1*#===	42.0	20.0	40.0	950	779	4.0	29	18
1.0	C38105BG1*#===	42.0	20.0	40.0	950	950	4.0	29	19
1.2	C38125BG3*#===	42.0	24.0	44.0	950	1140	4.0	29	19
1.5	C38155BG3*#===	42.0	24.0	44.0	950	1425	4.0	29	19.5
2.0	C38205BG4*#===	42.0	30.0	45.0	950	1900	4.0	29	20
2.2	C38225BG5*#===	42.0	42.0	43.0	950	2090	4.0	29	21
2.5	C38255BG5*#===	42.0	42.0	43.0	950	2375	4.0	29	22
2.2	C38225BT2*#===	57.0	30.0	45.0	600	1320	3.8	33	20
2.5	C38255BT2*#===	57.0	30.0	45.0	600	1500	3.8	33	21
3.0	C38305BT2*#===	57.0	30.0	45.0	600	1800	3.8	33	22
3.3	C38335BT3*#===	57.0	35.0	50.0	600	1980	3.8	33	23
4.0	C38405BT3*#===	57.0	35.0	50.0	600	2400	3.8	33	24

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IGBT 吸收电容器 (焊片式)

1600Vdc(650Vac)									
容量 capacitance μF	成品编码 Finished product code	外形尺寸 Exterior dimension (mm)			dV/dt (V/us)	Is (A)	ESR @100KHZ (m Ω)	Ls (nH)	Imax 100KHZ@ 70°C(A)
		W \pm 0.5	T \pm 0.5	H \pm 0.5					
0.22	C38224CS1*#===	37.0	15.0	25.0	1900	418	6.0	23	15
0.33	C38334CS2*#===	37.0	16.0	30.0	1900	627	6.0	23	15.5
0.39	C38394CS3*#===	37.0	20.0	34.0	1900	741	5.5	23	16
0.47	C38474CS3*#===	37.0	20.0	34.0	1900	893	5.5	23	17
0.68	C38684CG1*#===	42.0	20.0	40.0	1250	850	4.0	29	18
0.82	C38824CG3*#===	42.0	24.0	44.0	1250	1025	4.0	29	19
1.0	C38105CG4*#===	42.0	30.0	45.0	1250	1250	4.0	29	19.5
1.2	C38125CG4*#===	42.0	30.0	45.0	1250	1500	4.0	29	20
1.5	C38155CG5*#===	42.0	42.0	43.0	1250	1875	4.0	29	21
1.5	C38155CT2*#===	57.0	30.0	45.0	750	1125	3.5	33	22
2.0	C38205CT3*#===	57.0	35.0	50.0	750	1500	3.5	33	24

1700Vdc(675Vac)									
容量 capacitance μF	成品编码 Finished product code	外形尺寸 Exterior dimension (mm)			dV/dt (V/us)	Is (A)	ESR @100KHZ (m Ω)	Ls (nH)	Imax 100KHZ@ 70°C(A)
		W \pm 0.5	T \pm 0.5	H \pm 0.5					
0.15	C38154FS1*#===	37.0	15.0	25.0	2000	300	7.0	23	14
0.22	C381224FS2*#===	37.0	16.0	30.0	2000	440	6.0	23	15
0.33	C381334FS3*#===	37.0	20.0	34.0	2000	660	5.5	23	15.5
0.39	C381394FS3*#===	37.0	20.0	34.0	2000	780	5.5	23	16
0.47	C381474FG2*#===	42.0	24.0	36.0	1260	592	4.0	29	16
0.56	C381564FG2*#===	42.0	24.0	36.0	1260	706	4.0	29	17
0.68	C381684FG3*#===	42.0	24.0	44.0	1260	857	3.5	29	18
0.82	C381824FG3*#===	42.0	24.0	44.0	1260	1033	3.5	29	19
1.0	C381105FG4*#===	42.0	30.0	45.0	1260	1260	3.5	29	20
1.2	C381125FG5*#===	42.0	42.0	43.0	1260	1512	3.5	29	21
1.0	C381105FT1*#===	57.0	25.0	45.0	780	780	3.5	33	18
1.2	C381125FT2*#===	57.0	30	45	780	936	3.5	33	19
1.5	C381155FT3*#===	57.0	35.0	50.0	780	1170	3.0	33	22
2.0	C381205FT3*#===	57.0	35.0	50.0	780	1560	3.0	33	24
3.0	C381305FT4*#===	57.0	45.0	55.0	780	2340	3.0	33	28

2000Vdc(700Vac)									
容量 capacitance μF	成品编码 Finished product code	外形尺寸 Exterior dimension (mm)			dV/dt (V/us)	Is (A)	ESR @100KHZ (m Ω)	Ls (nH)	Imax 100KHZ @70°C(A)
		W \pm 0.5	T \pm 0.5	H \pm 0.5					
0.1	C38104DS1*#===	37.0	15.0	25.0	2241	224	8.0	23	14
0.15	C38154DS1*#===	37.0	15.0	25.0	2241	336	8.0	23	15
0.22	C38224DS2*#===	37.0	16.0	30.0	2241	493	6.0	23	15.5
0.33	C38334DS3*#===	37.0	20.0	34.0	2241	740	6.0	23	16
0.47	C38474DG1*#===	42.0	20.0	40.0	1300	611	4.0	29	17
0.56	C38564DG3*#===	42.0	24.0	44.0	1300	728	4.0	29	18

备注：使用涉及到和极限参数有关问题请与圣融达联系

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<http://www.srdkj.com>

Snubber capacitor for IGBT(Welding plate)
IGBT 吸收电容器 (焊片式)

0.68	C38684DG3*#===	42.0	24.0	44.0	1300	884	3.5	29	18.5
0.82	C38824DG4*#===	42.0	30.0	45.0	1300	1066	3.5	29	19
1.0	C38105DG5*#===	42.0	42.0	43.0	1300	1300	3.5	29	21
1.0	C38105DT2*#===	57.0	30.0	45.0	850	850	4.0	33	24
1.2	C38125DT2*#===	57.0	30.0	45.0	850	1020	4.0	33	23
1.5	C38155DT3*#===	57.0	35.0	50.0	850	1275	4.0	33	24
2500Vdc(725Vac)									
容量 capacitance μF	成品编码 Finished product code	外形尺寸 Exterior dimension (mm)			dV/dt (V/us)	Is (A)	ESR @100KHZ (m Ω)	Ls (nH)	IImax 100KHZ@ 70°C(A)
		W \pm 0.5	T \pm 0.5	H \pm 0.5					
0.068	C38683SS1*#===	37.0	15.0	25.0	3230	220	8.5	23	14
0.10	C38104SS2*#===	37.0	16.0	30.0	3230	323	8.5	23	15
0.15	C38154SS3*#===	37.0	20.0	34.0	3230	485	8.0	23	16
0.18	C38184SS3*#===	37.0	20.0	34.0	3230	581	7.5	23	17
0.22	C38224SG1*#===	42.0	20.0	40.0	2100	462	4.0	29	17
0.33	C38334SG3*#===	42.0	24.0	44.0	2100	693	4.0	29	17.5
0.47	C38474SG4*#===	42.0	30.0	45.0	2100	987	3.5	29	18
0.68	C38684SG5*#===	42.0	42.0	43.0	2100	1428	3.5	29	18.5
0.68	C38684ST2*#===	57.0	30.0	45.0	1200	816	3.5	33	19
1.0	C38105ST3*#===	57.0	35.0	50.0	1200	1200	3.5	33	19.5

3000Vdc(750Vac)									
容量 capacitance μF	成品编码 Finished product code	外形尺寸 Exterior dimension (mm)			dV/dt (V/us)	Is (A)	ESR @100KHZ (m Ω)	Ls (nH)	IImax 100KHZ@ 70°C(A)
		W \pm 0.5	T \pm 0.5	H \pm 0.5					
0.047	C38473ES1*#===	37.0	15.0	25.0	3361	158	8.5	23	13
0.068	C38683ES2*#===	37.0	16.0	30.0	3361	229	8.0	23	14
0.10	C38104ES3*#===	37.0	20.0	34.0	3361	336	7.5	23	15
0.15	C38154ES3*#===	37.0	20.0	34.0	3361	504	7.0	23	15.5
0.22	C38224EG1*#===	42.0	20.0	40.0	2050	451	5.0	29	16
0.33	C38334EG4*#===	42.0	30.0	45.0	2050	677	4.5	29	16.5
0.47	C38474EG5*#===	42.0	42.0	43.0	2050	964	4.0	29	18
0.47	C38474ET2*#===	57.0	30.0	45.0	1200	564	4.0	33	18.5
0.68	C38684ET3*#===	57.0	35.0	50.0	1200	816	4.0	33	19
0.82	C38824ET3*#===	57.0	35.0	50.0	1200	984	3.5	33	20
1.0	C38105ET4*#===	57.0	45.0	55.0	1200	984	3.5	33	20

- 备注 Note: 1.“*”表示安装孔距见表 1 所示。 “*”stands for hole distance for installation referencing table 1.
- 2.“#”表示内部识别码。 “#”stands for internal recognition code
- 3.“==”表示引出端方式代码见表 2 所示。 “==”stands for lead-out terminal type code referencing table 2.
- 4.“IImax”测试条件: 环境温度 70°C, 频率为 100KHz, 外壳温度达到 85°C 下的有效值。 IImax”test conditions: ambient temperature 70°C, frequency 100KHz, shell temperature reaching the valid value below 85°C.
- 5.“ESR”, “Ls”均为典型值测试数据。 “ESR”and “Ls” are both typical value test data.
6. “Is”^表示最大冲击电流。 “Is”^stands for maximum pulse current.