Hitachi Power Diode
Status List

Date: Feb. 2017

Compliance status of RoHS directive

C:Compliant **S.C**:Compliant (Included RoHS exemption substance) **N**:Non compliant

Production Status

M:Mass production **O**:Order production **W**:Working sample **D**:Discontinued

General-Use Rectifier Diodes

◆Glass Molded Type

Type	Absolute maximum ratings				Characteristics		Outline	RoHS Status	status
	V_{RRM} (V)	$I_{F(AV)}$ (A)	I_{FSM} (A)	T_j (^oC)	V_{FM} (at I_{FM}) (V) (A)	t_{rr} (ms)			
H14A	100	1.0	45	-40 ~+175	1.0 (1.0)	–	2A	S.C	M
B	200								
C	300								
D	400								
E	500								
F	600								
H	800			-40 ~+165					
J	1,000								
V06C	200	1.1	35	-65 ~+175	1.4 (1.1)	–	2A	S.C	M
E	400								
G	600								
J	800								
V03C	200	1.3	40		1.1 (1.3)	–	2A	S.C	M
E	400								
G	600								
J	800								
U05B	100	2.5	100		1.1 (2.5)	–	2B	S.C	M
C	200								
E	400								
G	600								
J	800								
U15B	100	3	80		1.0 (3.0)	–	2B	S.C	M
C	200								
E	400								
G	600		60						
J	800								

◆Resin Molded Type

Type	Absolute maximum ratings				Characteristics		Outline	RoHS Status	status
	V_{RRM} (V)	$I_{F(AV)}$ (A)	I_{FSM} (A)	T_j (^oC)	V_{FM} (at I_{FM}) (V) (A)	t_{rr} (ms)			
DSA3A1	100	3.0	120	-40~+150	1.0 (3.0)	–	2C	S.C	M
2	200								
4	400								

◆Surface Mount Type

Type	Absolute maximum ratings				Characteristics		Outline	RoHS Status	status
	V_{RRM} (V)	$I_{F(AV)}$ (A)	I_{FSM} (A)	T_j (^oC)	V_{FM} (at I_{FM}) (V) (A)	t_{rr} (ms)			
DSM1MA1	100	1.0	25	-40 ~+150	1.1 (1.0)	–	4A	S.C	M
2	200								
4	400								
DSM3MA1	100	3.0	80	-40 ~+150	1.0 (3.0)	–	4B	S.C	M
2	200								
4	400								

Fast Recovery Diodes

◆Glass Molded Type

Type	Absolute maximum ratings				Characteristics		Outline	RoHS Status	status
	V_{RRM} (V)	$I_{F(AV)}$ (A)	I_{FSM} (A)	T_j (°C)	V_{FM} (at I_{FM}) (V) (A)	t_{rr} (ms)			
DFG1E6	600	0.3	5	-65 ~+150	5.0 (0.3)	35ns	2A	S.C	M
8	800								
10	1,000								
DFG1D1	100	1.0	30		1.5 (1.0)	50ns	2A	S.C	M
2	200								
4	400								
DFG1C1	100	1.0	35		1.2 (1.0)	0.1	2A	S.C	M
2	200								
4	400								
6	600		30		1.6 (1.0)				
8	800								
DFG3A1	100	3.0	70		1.3 (3.0)	0.1	2B	S.C	M
2	200								
4	400								
V19B	100	1.0	30		1.2 (1.0)	0.2	2A	S.C	M
C	200								
E	400								
G	600								
DFG1A8	800	1.0	40	-65 ~+165	1.2 (1.0)	0.2	2A	S.C	M
H114B	200	1.0	40	-40 ~+150	1.15 (1.0)	0.2	2A	S.C	M
D	400								
E	500								
F	600								
U19B	100	2.5	80	-65 ~+150	1.3 (2.5)	0.2	2B	S.C	M
C	200								
E	400								
DFG2A6	600	2.5	80	-65 ~+165	1.3 (2.5)	0.2	2B	S.C	M
8	800								
V11J	800	0.4	30	-65 ~+150	2.5 (0.4)	0.4	2A	S.C	M
L	1,000								
M	1,300								
N	1,500								
V09C	200	0.8	35	-65 ~+165	1.6 (0.8)	0.4	2A	S.C	M
E	400								
G	600								
U07J	800	1.0	50	-65 ~+140	2.5 (1.0)	0.4	2B	S.C	M
L	1,000								
M	1,300								
N	1,500								
U06C	200	2.0	80	-65 ~+150	1.2 (2.0)	0.4	2B	S.C	M
E	400								
G	600								

◆Surface Mount Type

Type	Absolute maximum ratings				Characteristics		Outline	RoHS Status	status
	V_{RRM} (V)	$I_{F(AV)}$ (A)	I_{FSM} (A)	T_j (°C)	V_{FM} (at I_{FM}) (V) (A)	t_{rr} (ns)			
DFM1MF2	200	1.0	25	-40 ~+150	0.95 (1.0)	35	4A	S.C	M
DFM3MF2	200	3.0	50	-40 ~+150	0.95 (3.0)	35	4B	S.C	M

Controlled Avalanche Diodes

◆Glass Molded Type

Type	Absolute maximum ratings					Characteristics	Outline	RoHS Status	status
	V_{RRM} (V)	$I_{F(AV)}$ (A)	P_{RM} (W)	I_{FSM} (A)	T_j (^oC)	V_{FM} (at I_{FM}) (V) (A)			
H24F	600	1.0	1,000	45	-65 ~+175	1.0 (1.0)	2A	S.C	M
H	800				-65 ~+165				
J	1,000								
V08E	400	1.1	40	35	-65 ~+175	1.4 (1.1)	2A	S.C	M
G	600								
J	800								
V07E	400	1.3	40	40		1.1 (1.3)	2A	S.C	M
G	600								
J	800								
V17A	50	1.3	1,500	50	-40 ~+165	1.1 (1.3)	2A	S.C	M
B	100								
C	200								
D	300								
E	400								
U17B	100	2.5	3,000	100	-40 ~+175	1.1 (2.5)	2B	S.C	M
C	200								
D	300								
E	400								

High Voltage – Fast Recovery Diodes

◆Resin Molded Type

Type	Absolute maximum ratings				Characteristics		Outline	RoHS Status	status
	V_{RRM} (kV)	* $I_{F(AV)}$ (mA)	I_{FSM} (A)	T_j (^oC)	V_{FM} (at I_{FM}) (V) (mA)	t_{rr} (ns)			
DHM3T30	3	3 [15.75]	0.5	-40 ~+120	13 (5)	100	1B	S.C	M
DHM3P40	4				13 (5)	100	1B	S.C	M
DHM3G80	8				25 (5)	100	1F	S.C	M
DHM3J120	12				42 (5)	100	1G	S.C	M
DHM3C140	14				45 (5)	100	1H	S.C	M
DHM3FJ60	6	1 [63] 3 [15.75]	0.5		22 (5)	70	1F	S.C	M
DHM3FG80	8				28 (5)	70	1F	S.C	M
DHM3UM80	8	1 [100] 3 [15.75]	0.5		23 (5)	40	1F	S.C	M

* [ ] : Frequency, unit (kHz)

High Voltage – Fast Recovery Diodes (For Automotive)

◆Resin Molded Type

Type	Absolute maximum ratings				Characteristics		Outline	RoHS Status	status
	V_{RRM} (kV)	$I_{F(AV)}$ (mA)	I_{FSM} (A)	T_j (^oC)	V_{FM} (at I_{FM}) (V) (mA)	t_{rr} (ns)			
DHM10A30	3.0	10	1	+150	8.4 (10)	-	1K	S.C	M
DHM30A10	1.0	30	3		2.0 (10)	-	1M	S.C	M
DHM30A20	2.0	30	3		5.0 (10)	-	1M	S.C	M
DHM30A25	2.5	30	3		5.0 (10)	-	1M	S.C	M
DHM30A30	3.0	30	3		6.0 (10)	-	1F	S.C	M
DHM30A40	4.0	30	3		10.0 (10)	-	1L	S.C	M

Zener Diodes

◆Glass Molded Type

Type	Absolute maximum ratings			Characteristics			Outline	RoHS Status	status
	P (W)	P_{RSM} (Wp)	T_j (^oC)	V_Z (V) Min.	V_Z (V) Max.	Test Current (mA)			
AW01-06	1.0	80	-40 ~+150	5.2	6.8	60	2A	S.C	M
AW01/AU01-07	1.0/2.5	80/160	-40 ~+150 / -40 ~+165	6.2	7.9	25/65	2A/2B	S.C / S.C	M / M
08				7.7	8.7	25/65			
09				8.5	9.6	25/65			
10				9.4	10.6	25/65			
11				10.4	11.6	25/65			
12				11.4	12.7	25/65			
13				12.4	14.1	25/65			
15				13.5	15.6	15/40			
16				15.3	17.1	15/40			
18				16.8	19.1	15/40			
20				18.8	21.2	15/40			
22				20.8	23.3	15/40			
24				22.7	25.6	10/25			
27				25.1	28.9	10/25			
30				28.0	32.0	10/25			
33				31.0	35.0	10/25			

Type	Absolute maximum ratings			Characteristics			Outline	RoHS Status	status
	P_{RSM} (kW)	V_{DC} (V)	T_j (^oC)	V_Z (V) Min.	V_Z (V) Max.	Test Current (mA)			
DAM1MA/3MA12	0.6/1.8	9	-40 ~+150	11.4	12.7	25/75	4A/4C	S.C	M
13		10		12.4	14.1	25/75			
15		11		13.5	15.6	25/75			
16		12		15.3	17.1	15/75			
18		13		16.8	19.1	15/45			
20		14		18.8	21.2	15/45			
22		16		20.8	23.3	15/45			
24		18		22.7	25.6	10/30			
27		20		25.1	28.9	10/30			
30		22		28.0	32.0	10/30			
33		24		31.0	35.0	10/30			
36		26		33.4	38.6	10/30			
39		28		36.1	41.9	10/20			
43		31		39.8	46.2	6/20			
47		34		43.3	50.7	6/20			
51		37		46.9	55.1	6/20			
68		49		61.2	74.8	4/10			
75		54		67.5	82.5	4/10			
82		59		73.8	90.2	3/10			

Surge Suppressor Diodes

◆Surface Mount Type

Type	Absolute maximum ratings			Characteristics			Outline	RoHS Status	status
	P_{PPM} (kW)	V_{RM} (V)	T_j (°C)	V_Z (V) Min.	V_Z (V) Max.	Test Current (mA)			
DAM1MB/2MB/3MB12	0.6/1.2/1.8	9.7	-65 ~+185	11.4	12.7	1	4A/4B/4C	S.C	M
13		10.5		12.4	14.1	1			
15		12.1		13.5	15.6	1			
16		12.9		15.3	17.1	1			
18		14.5		16.8	19.1	1			
20		16.2		18.8	21.2	1			
22		17.8		20.8	23.3	1			
24		19.4		22.7	25.6	1			
27		21.8		25.1	28.9	1			
30		24.3		28.0	32.0	1			
33		26.8		31.0	35.0	1			
36		29.1		33.4	38.6	1			
39		31.6		36.1	41.9	1			
43		34.8		39.8	46.2	1			
47		38.0		43.3	50.7	1			
51		41.3		46.9	55.1	1			
68		55.1		61.2	74.8	1			
75		60.7		67.5	82.5	1			
82		66.4		73.8	90.2	1			

Load Dump Surge Suppressor Diodes

Type	Absolute maximum ratings			Characteristics			Outline	RoHS Status	status
	P_{RSM} (kW)	V_{DC} (V)	T_j (°C)	V_Z (V) Min.	V_Z (V) Max.	Test (mA)			
ZSH5MA27(※)	3.0kW 62A	18	-40 ~+150	24.0	30.0	10	6A	S.C	M
ZSH5MA27(A)(※)									
ZSH5MA27(S)(※)									
ZSH5MC27(※)	3.2kw 65A							S.C	M
ZSH5MC27(S)(※)									
ZSH5MAZ27	3.4kW 70A	22						S.C	M
ZSH8MD27	5.7kW 130A						6B	S.C	M
ZSH8MD40	5.7kW 80A	32		36.0	44.0	10		S.C	M
ZSH5MK27	3.4kW 70A	22		24.0	30.0	10	7B	S.C	M
ZSH5MT27C	3.4kW 70A						7A		
ZSH5MT27(Z)	4.3kW 90A								
ZSH5MT40C	4.3kW 62A	32		36.0	44.0	10			
ZSH5MT48C	4.3kW 50A	39		43.2	52.8	10			
ZSH5MT53C	4.3kW 45A	43		47.7	58.3	10			
ZSH5MV14	4.3kW 200A	11		13.0	15.0	10	5	S.C	M
ZSH5MV27	4.3kW 100A	22		24.0	30.0	10			

**** Please consider alternative new products as following.**

ZSH5MA27/27(A)/27(S) --> ZSH5MAZ27,ZSH5MT serise,ZSH8MD27

ZSH5MC27/27(S) --> ZSH5MAZ27,ZSH5MT serise,ZSH8MD27

Discontinued

◆Surge Suppressor Diodes

Type	Absolute maximum ratings			Characteristics			Outline	RoHS Status	status
	P_{RSM} (kW)	V_{DC} (V)	T_j (°C)	V_Z (V) Min.	V_Z (V) Max.	Test (mA)			
DAM1MA10	0.6	7	-40 ~+150	9.4	10.6	25	4A	S.C	D
DAM3MA10	1.8	7		9.4	10.6	75	4B	S.C	D
DAM1MA11	0.6	8		10.4	11.6	25	4A	S.C	D
DAM3MA11	1.8	8		10.4	11.6	75	4B	S.C	D

◆Resin Molded Type

Type	Absolute maximum ratings			Characteristics			Outline	RoHS Status	status
	P_{RSM} (kW)	V_{DC} (V)	T_j (°C)	V_Z (V) Min.	V_Z (V) Max.	Test Current (mA)			
DAM1SA/1A10	0.6	7	-40 ~+150	9.4	10.6	25	1A/1B	S.C / S.C	D / D
11		8		10.4	11.6	25			
12		9		11.4	12.7	25			
13		10		12.4	14.1	25			
15		11		13.5	15.6	25			
16		12		15.3	17.1	15			
18		13		16.8	19.1	15			
20		14		18.8	21.2	15			
22		16		20.8	23.3	15			
24		18		22.7	25.6	10			
27		20		25.1	28.9	10			
30		22		28.0	32.0	10			
33		24		31.0	35.0	10			
36		26		33.4	38.6	10			
39		28		36.1	41.9	10			
43		31		39.8	46.2	6			
47		34		43.3	50.7	6			
51		37		46.9	55.1	6			
DAM3A/3B10	1.8	7	-40 ~+150	9.4	10.6	75	1E/1D	S.C / S.C	D / D
11		8		10.4	11.6	75			
12		9		11.4	12.7	75			
13		10		12.4	14.1	75			
15		11		13.5	15.6	75			
16		12		15.3	17.1	75			
18		13		16.8	19.1	45			
20		14		18.8	21.2	45			
22		16		20.8	23.3	45			
24		18		22.7	25.6	30			
27		20		25.1	28.9	30			
30		22		28.0	32.0	30			
33		24		31.0	35.0	30			
36		26		33.4	38.6	30			
39		28		36.1	41.9	30			
43		31		39.8	46.2	20			
47		34		43.3	50.7	20			
51		37		46.9	55.1	20			

◆High Voltage – Fast Recovery Diodes

Type	Absolute maximum ratings				Characteristics		Outline	RoHS Status	status
	V_{RRM} (kV)	* $I_{F(AV)}$ (mA)	I_{FSM} (A)	T_j (°C)	V_{FM} (at I_{FM}) (V) (mA)	t_{rr} (ns)			
DHM3S20	2	3 [15.75]	0.5	-40 ~+120	10 (5)	100	1B	S.C	D
DHM3UG120	12	1 [100] 3 [15.75]			36 (5)	40	1G	S.C	D

*[ ] : Frequency,unit（kHz）

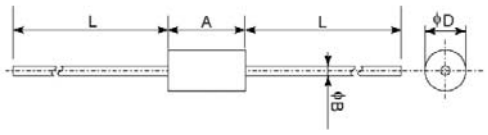
◆Load Dump Surge Suppressor Diodes

Type	Absolute maximum ratings			Characteristics			Outline	RoHS Status	status
	P_{RSM}(kW) I_{RSM}(A)	V_{DC} (V)	T_j (°C)	V_Z (V) Min.	V_Z (V) Max.	Iz (mA)			
ZSA5A27	3.0kW 62A		-40 ~+150	24.0	30.0	10	3A	S.C	D
ZSA5MA27							3B	S.C	D

Outline

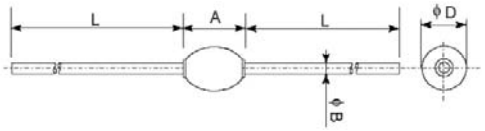
[Dimensions in mm]

●Outline No.1



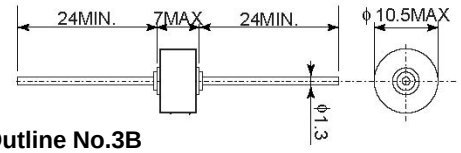
Items	A	ϕD	ϕB	L (Min.)
1A	3	2.5	0.6	28
1B	5	2.65	0.6	27
1C	5	2.65	0.8	27
1D	6	3.6	0.8	26
1E	7.5	6.4	1.2	26
1F	6.5	2.5	0.5	28
1G	10	2.5	0.5	26
1H	10	3	0.6	26,28
1J	8	3	0.6	28
1K	6.5	2.5	0.5	27
1L	8	3	0.6	27
1M	5	2.5	0.5	27

●Outline No.2

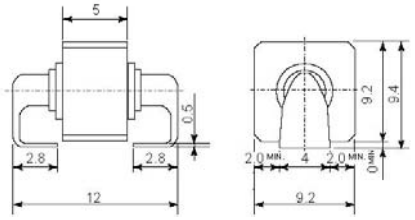


Items	A (Max.)	ϕD (Max.)	ϕB	L (Min.)
2A	5	3.5	0.8	29
2B	7	5	1.2	28
2C	7	5	1.2	27

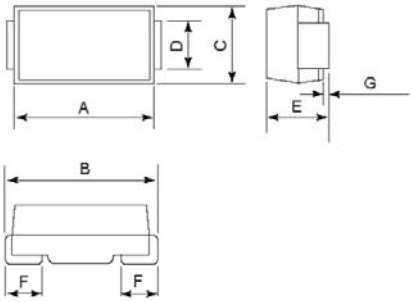
●Outline No.3A



●Outline No.3B

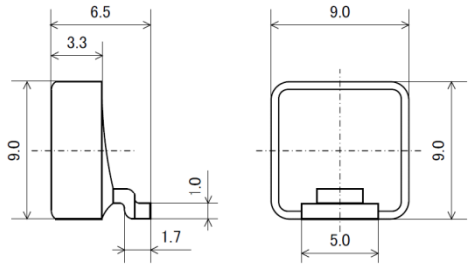


●Outline No.4

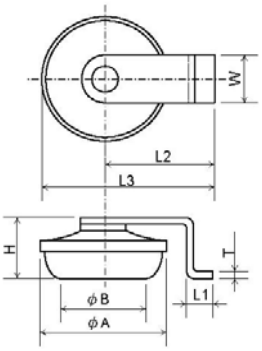


Items	A	B	C	D	E	F	G
4A	4.3	4.7	2.5	1.5	2.0	1.2	0.1
4B	4.4	5.4	3.6	2.0	2.3	1.2	0.2
4C	7.0	7.6	4.0	2.0	2.5	1.4	0.2

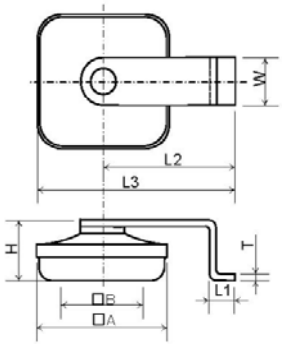
●Outline No.5



●Outline No.6



●Outline No.7A, 7B



Items	A	B	L1	L2	L3	H	W	T
6A	9.6	7.4	2.0	8.3	13.1	4.4	3.5	0.5
6B*	9.6	-	2.0	8.3	13.1	6.0	3.5	0.5
7A	10.0	7.5	2.0	10.0	15.0	4.4	3.5	0.5
7B**	10.0	7.5	2.0	10.0	15.0	4.4	2.7	0.5

*:Packages is different　　**:JEDEC DO-218AB Compatible

Notices

1. The information given herein, including the specifications and dimensions, is subject to change without prior notice to improve product characteristics. Before ordering, purchasers are advised to contact Hitachi Power Semiconductor Device (HPSD) sales department for the latest version of data sheets.
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