

Hitachi Power Diode

Status List

Date: Nov. 2010

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 **A:** Abolition

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 (°C)	V _{FM} (at I _{FM}) (V) (A)	t _{rr} (μs)				
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									
J	1,000									
				-40 ~+165						
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		-65 ~+175	1.1 (1.3)	-	2A	S.C	M
E	400									
G	600									
J	800									
U05B	100	2.5	100	-65 ~+175		1.1 (2.5)	-	2B	S.C	M
C	200									
E	400									
G	600									
J	800									
U15B	100	3	80		-65 ~+175	1.0 (3.0)	-	2B	S.C	M
C	200									
E	400									
G	600									
J	800									
			60							

◆ Resin 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} (μs)			
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 (°C)	V _{FM} (at I _{FM}) (V) (A)	t _{rr} (μs)			
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} (μs)						
DFG1E6 8 10	600	0.3	5	-65 ~+150	5.0 (0.3)	35ns	2A	S.C	M			
	800											
	1,000											
DFG1D1 2 4	100	1.0	30		-65 ~+150	1.5 (1.0)	50ns	2A	S.C	M		
	200											
	400											
DFG1C1 2 4 6 8	100	1.0	35		-65 ~+150	1.2 (1.0)	0.1	2A	S.C	M		
	200											
	400		30			1.6 (1.0)						
	600											
	800											
DFG3A1 2 4	100	3.0	70			-65 ~+150	1.3 (3.0)	0.1	2B	S.C	M	
	200											
	400											
V19B C E G	100	1.0	30				-65 ~+150	1.2 (1.0)	0.2	2A	S.C	M
	200											
	400											
	600											
DFG1A8	800	1.0	40	-65 ~+165				1.2 (1.0)	0.2	2A	S.C	M
H114B D E F	200	1.0	40	-40 ~+150				1.15 (1.0)	0.2	2A	S.C	M
	400											
	500											
	600											
	800											
U19B C E	100	2.5	80	-65 ~+150	1.3 (2.5)			0.2	2B	S.C	M	
	200											
	400											
DFG2A6 8	600	2.5	80		-65 ~+165	1.3 (2.5)		0.2	2B	S.C	M	
	800											
V11J L M N	800	0.4	30	-65 ~+150		2.5 (0.4)	0.4	2A	S.C	M		
	1,000											
	1,300											
	1,500											
V09C E G	200	0.8	35		-65 ~+165	1.6 (0.8)	0.4	2A	S.C	M		
	400											
	600											
U07J L M N	800	1.0	50	-65 ~+140		2.5 (1.0)	0.4	2B	S.C	M		
	1,000											
	1,300											
	1,500											
U06C E G	200	2.0	80		-65 ~+150	1.2 (2.0)	0.4	2B	S.C	M		
	400											
	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 (°C)	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	-65 ~ +175	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

型式	絶対最大定格				電気的特性		外形図	RoHS対応	ステータス
	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	M
DHM3T30	3				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
DHM3FX80	8				28 (5)	70	1F	S.C	M
DHM3HX120	12				1 [82] 3 [15.75]	0.5	48 (5)	50	1H
DHM3UF80	8	1 [100] 3 [15.75]	0.5	23 (5)	40	1F	S.C	M	
DHM3UM80	8			23 (5)	40	1F	S.C	M	
DHM3UG120	12			36 (5)	40	1G	S.C	M	

* [] : Frequency, unit (kHz)

Zener Diodes

◆Glass Molded Type

Type	Absolute maximum ratings			Characteristics			Outline	RoHS Status	status
	P (W)	P _{RSM} (Wp)	T _j (°C)	V _z (V)		Test Current (mA)			
				Min.	Max.				
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						

■ Surge Suppressor Diodes

◆ Surface Mount Type

Type	Absolute maximum ratings			Characteristics			Outline	RoHS Status	status
	P _{PRSM} (kW)	V _{DC} (V)	T _J (°C)	V _Z (V)		Test Current (mA)			
				Min.	Max.				
DAM1MA/3MA12	0.6/1.8	9	-40 ~+150	11.4	12.7	25/75	4A/4B	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					

◆ Surface Mount Type (JEDEC DO-214 package)

Type	Absolute maximum ratings			Characteristics			Outline	RoHS Status	status
	P _{PPM} (kW)	V _{RM} (V)	T _J (°C)	V _Z (V)		Test Current (mA)			
				Min.	Max.				
12	0.4/0.6/1.5	9.7	-65 ~+150	11.4	12.7	1	4C/4D/4E	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			
DAM04SMA		19.4		22.7	25.6	1			
/		21.8		25.1	28.9	1			
DAM06SMB		24.3		28.0	32.0	1			
/		26.8		31.0	35.0	1			
DAM15SMC		29.1		33.4	38.6	1			
36		31.6		36.1	41.9	1			
39		34.8		39.8	46.2	1			
43		38.0		43.3	50.7	1			
47		41.3		46.9	55.1	1			
51		55.1		61.2	74.8	1			
68		60.7		67.5	82.5	1			
75	66.4	73.8	90.2	1					
82									

■ 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)		Test Current (mA)			
				Min.	Max.				
ZSA5A27**	3.0kW 62A	18	-40 ~+150	24.0	30.0	10	3	S.C	M
ZSA5MA27**							5	S.C	M
ZSH5MA27**							6A	S.C	M
ZSH5MA27(A)**								S.C	M
ZSH5MA27(S)**								S.C	M
ZSH5MC27**							3.2kw 65A	22	36.0
ZSH5MC27(S)**	S.C	M							
ZSH5MAZ27	3.4kW 70A	32		24.0	30.0	10	7	S.C	M
ZSH8MD27	5.7kW 130A							S.C	M
ZSH8MD40	5.7kW 80A	39		43.2	52.8	10	7	S.C	W
ZSH5MT27C	3.4kW 70A							S.C	M
ZSH5MT27(Z)	4.3kW 90A							S.C	M
ZSH5MT40C	4.3kW 62A		S.C					M	
ZSH5MT48C	4.3kW 50A	43	47.7	58.3	10	7	S.C	M	
ZSH5MT53C	4.3kW 45A						S.C	M	

- Topics -

Optional product ... Please contact us.

ZSH5MAZ Series Vz(V) : 22, 24, 30, 33, 36, 39, 43, 47, 51

ZSH5MT Series Vz(V) : 22, 24, 30, 33, 36, 39, 43, 47, 51

ZSH8MD Series Vz(V) : 22, 24, 30, 33, 36, 39, 43, 47, 51

** Please consider alternative new products as following.

ZSA5A27 --> ZSH5MAZ27,ZSH5MT serie,ZSH8MD27

ZSA5MA27 --> ZSH5MAZ27,ZSH5MT serie,ZSH8MD27

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

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

Abolition

◆ Surge Suppressor Diodes

Type	Absolute maximum ratings			Characteristics			Outline	RoHS Status	status
	PRSM (kW)	VDC (V)	Tj (°C)	Vz (V)		Test Current (mA)			
				Min.	Max.				
DAM1MA10	0.6	7	-40 ~+150	9.4	10.6	25	4A	S.C	A
DAM3MA10	1.8	7		9.4	10.6	75	4B	S.C	A
DAM1MA11	0.6	8		10.4	11.6	25	4A	S.C	A
DAM3MA11	1.8	8		10.4	11.6	75	4B	S.C	A

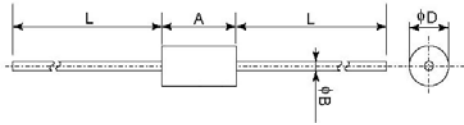
◆ Resin Molded Type

Type	Absolute maximum ratings			Characteristics			Outline	RoHS Status	status
	PRSM (kW)	VDC (V)	Tj (°C)	Vz (V)		Test Current (mA)			
				Min.	Max.				
DAM1SA/1A10	0.6	7	-40 ~+150	9.4	10.6	25	1A/1B	S.C / S.C	A / A
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	A / A
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					

Outline

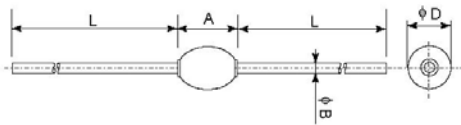
[Dimensions in mm]

Outline No.1



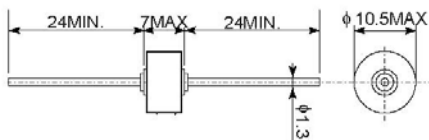
Items	A	φD	φB	L (Min.)
1A	3	2.5	0.6	28
1B	5	2.65	0.6	27
1C	5	2.65	0.8	27
1D	6	3.6	0.8	26
1E	7.5	6.4	1.2	26
1F	6.5	2.5	0.5	28
1G	10	2.5	0.5	26
1H	10	3	0.6	26,28
1J	8	3	0.6	28

Outline N0.2

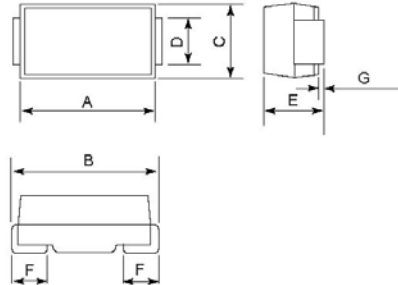


Items	A (Max.)	φD (Max.)	φB	L (Min.)
2A	5	3.5	0.8	29
2B	7	5	1.2	28
2C	7	5	1.2	27

Outline N0.3



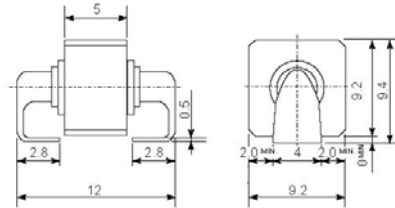
Outline No.4



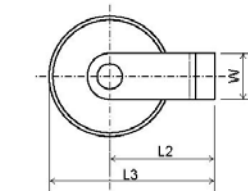
Items	A	B	C	D	E	F	G
4A	4.3	4.7	2.5	1.5	2.0	1.2	0.1
4B	7.0	7.6	4.0	2.0	2.5	1.4	0.2
4C*	4.60	5.60	2.95	1.65	2.90	1.60	0.20
4D*	4.60	5.60	3.95	2.20	2.65	1.60	0.20
4E*	7.15	8.15	6.25	3.20	2.65	1.60	0.20

*:Maximum dimension value

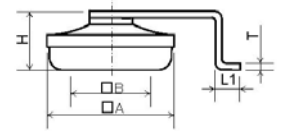
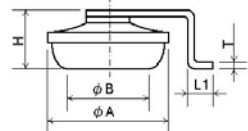
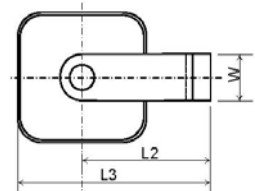
Outline N0.5



Outline N0.6



Outline N0.7



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	(6.6)	3.5	0.5
7	10.0	7.5	2.0	10.0	15.0	(4.4)	3.5	0.5

():For reference * :Packages is different

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