

AVALANCHE RECTIFIERS

Sinterglass and Plastic

Ultrafast Avalanche Rectifiers (Halogen-Free, RoHS-Compliant)

Product		Package	Dimensions l x w x h (mm) or l x Ø (mm)	Reverse Voltage V _R Max. (V)	Reverse Recovery Time t _{rr} Max. (ns)	Average Forward Current I _{FAV} (A)	Forward Voltage V _F Max. at I _F (V at mA)	Non- Repetitive Reverse Avalanche Energy E _R at I _{BR} (mJ at A)	T _J Max. (°C)	ESD HBM ⁽¹⁾	ESD MM ⁽²⁾	MSL	Wave Solderable	Reflow Solderable	AEC-Q101 Qualified Available
Leaded Sinterglass	BYT53A to BYT53G	SOD-57	4.2 x Ø 3.6	50 to 400	50	1.9	1.1 at 1	20 at 1	175	x	x	n/a	x		No
	BYV26A to BYV26E			200 to 1000	30 (75)	1	2.5 at 1	10 at 1		x	x		x		
	BYV27-50 to BYV27-200			50 to 200	25	2	1.07 at 3	20 at 1		x	x		x		
	BYV27-600			600	40	2	1.35 at 3	10 at 0.4		x	x		x		
	SF1200 to SF1600			1200 to 1600	75	1	3.4 at 1	10 at 0.4		x	x		x		
	SF4001 to SF4007			50 to 1000	50 (75)	1	1 (1.7) at 1	10 at 0.4		x	x		x		
	BYV28-50 to BYV28-200			50 to 200	30	3.5	1.1 at 5	20 at 1		x	x		x		
BYV28-600	600	50	3.5	1.35 at 5	20 at 1	x	x	x							
BYV98-50 to BYV98-200	50 to 200	35	4	1.1 at 5	20 at 1	x	x	x							
BYW178	800	60	3	1.9 at 3	20 at 1	x	x	x							
SF5401 to SF5408	100 to 1000	50 (75)	3	1.1 (1.7) at 3	10 at 0.4	x	x	x							
SMD Plastic	AU1PDH to AU1MH	SMP (DO-220AA)	4 x 2.18 x 1.15	200 to 1000	75	1	1.5 (1.85) at 1	20 at 1	150	x	x	1		x	Yes
	BYG20DH to BYG20JH	SMA (DO-214AC)	5.28 x 2.79 x 2.29	200 to 600	75	1.5	1.3 at 1	20 at 1		x	x			x	
	BYG23MH			1000	75	1.5	1.7 at 1	20 at 1		x	x			x	
	BYG22AH to BYG22DH			50 to 200	25	2	1 at 1	20 at 1		x	x			x	
	AU2PDH to AU2PMH	SMPC (TO-277A)	4.75 x 6.65 x 1.2	200 to 1000	75	2	1.9 (2.5) at 2	30 at 1		175	x		x		
AU3PDH to AU3PMH	2000 to 1000			75	3	1.9 (2.5) at 3	30 at 1	x	x				x		

Fast Avalanche Rectifiers (Halogen-Free, RoHS-Compliant)

Product		Package	Dimensions l x w x h (mm) or l x Ø (mm)	Reverse Voltage V _R Max. (V)	Reverse Recovery Time t _{rr} Max. (ns)	Average Forward Current I _{FAV} (A)	Forward Voltage V _F Max. at I _F (V at mA)	Non- Repetitive Reverse Avalanche Energy E _R at I _{BR} (mJ at A)	T _J Max. (°C)	ESD HBM ⁽¹⁾	ESD MM ⁽²⁾	MSL	Wave Solderable	Reflow Solderable	AEC-Q101 Qualified Available
Leaded Sinterglass	BY203-12S to BY203-20S	SOD-57	4.2 x Ø 3.6	1200 to 2000	300	0.25	2.4 at 0.2	10 at 0.4	175		x	n/a	x		No
	BY268, BY269			1400 to 1600	400	0.8	1.25 at 0.4				x		x	x	
	BYT52A to BYT52M			50 to 1000	200	1.4	1.3 at 1			x	x		x		
	BYT54A to BYT54M			50 to 1000	100	1.25	1.5 at 1			x	x		x		
	BYV12 to BYV16			100 to 1000	300	1.5	1.5 at 1			x	x		x		
	BYV37 to BYV38			800 to 1000	300	2	1.1 at 1			x	x		x		
	BYW32 to BYW36			200 to 600	200	2	1.1 at 1			x	x		x		
	1N5417 to 1N5418			200 to 400	100	3.0	1.1 at 3			x	x		x		
	BYW172D to BYW172G			200 to 400	100	3	1.1 at 3			x	x		x		
	BYM36A to BYM36F			200 to 1000	100 (150)	3 (2.9)	1.6 (1.78) at 3			x	x		x		
	BYT56A to BYT56M			50 to 1000	100	3	1.4 at 3			x	x		x		
	BYT77 to BYT78			800 to 1000	250	3	1.2 at 3			x	x		x		
	BYW72 to BYW76			200 to 600	200	3	1.1 at 3			x	x		x		

Notes

⁽¹⁾ > 8000 V, 1500 Ω / 100 pF typical rating

⁽²⁾ > 800 V, 0 Ω / 200 pF typical rating

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Fast Avalanche Rectifiers (Halogen-Free, RoHS-Compliant)

	Product	Package	Dimensions l x w x h (mm) or l x Ø (mm)	Reverse Voltage V _R Max. (V)	Reverse Recovery Time t _{rr} Max. (ns)	Average Forward Current I _{FAV} (A)	Forward Voltage V _F Max. at I _F (V at mA)	Non- Repetitive Reverse Avalanche Energy E _R at I _{BR} (mJ at A)	T _J Max. (°C)	ESD HBM ⁽¹⁾	ESD MM ⁽²⁾	MSL	Wave Solderable	Reflow Solderable	AEC-Q101 Qualified Available					
SMD Plastic	AR1PDH to AR1PMH	SMP (DO-220AA)	4 x 2.18 x 1.15	200 to 1000	120 (140)	1	1.25 (1.6) at 1	20 at 1	175	x	x	1		x	Yes					
	BYG21KH to BYG21MH	SMA (DO-214AC)	5.28 x 2.79 x 2.29	800 to 1000	120	1.5	1.5 at 1									150	x	x		x
	BYG24DH to BYG24JH			200 to 600	140	1.5	1.15 at 1									150	x	x		x
	AR3PDH to AR3PJH	SMPC (TO-277A)	4.75 x 6.65 x 1.2	200 to 1000	120 (140)	3	1.6 (1.9) at 3	30 at 1	175	x	x		x							
	AR3PKH to AR3PMH			200 to 1000	120	4	1.6 (1.9) at 4			175	x	x		x						
	AR4PDH to AR4PJH									x	x		x							
AR4PKH to AR4PMH									x	x		x								

Standard Avalanche Rectifiers (Halogen-Free, RoHS-Compliant)

	Product	Package	Dimensions l x w x h (mm) or l x Ø (mm)	Reverse Voltage V _R Max. (V)	Reverse Recovery Time t _{rr} Max. (ns)	Average Forward Current I _{FAV} (A)	Forward Voltage V _F Max. at I _F (V at mA)	Non- Repetitive Reverse Avalanche Energy E _R at I _{BR} (mJ at A)	T _J Max. (°C)	ESD HBM ⁽¹⁾	ESD MM ⁽²⁾	MSL	Wave Solderable	Reflow Solderable	AEC-Q101 Qualified Available	
Leaded Sinterglass	1N5059 to 1N5062	SOD-57	4.2 x Ø 3.6	200 to 800	4000	2	1 at 1	20 at 1	175	x	x	n/a	x		No	
	BY448 to BY458			1200 to 1400	2000	2	1.6 at 3	10 at 0.4		x	x		x			
	BY527			800	4000	2	1 at 1	20 at 1		x	x		x			
	BYT51A to BYT51M			50 to 1000	4000	1.5	1.1 at 1	20 at 1		x	x		x	Yes		
	BYT62			2400	5000	0.35	3 at 0.2	60 at 1		x	x		x	No		
	BYW52 to BYW56			200 to 1000	4000	2	1 at 1	20 at 1		x	x		x	Yes		
	S330D			1000	4000	2	1.65 at 10	20 at 1		x	x		x			
	BY228	1500	2000	3	1.5 at 5	10 at 0.4	x	x	x	No						
	BY228-13 to BY228-15	100 to 1200	2000	3	1.5 at 5	10 at 0.4	x	x	x							
	BYW82 to BYW86	200 to 1000	5000	3	1 at 3	20 at 1	x	x	x	Yes						
1N5624 to 1N56727	200 to 800	5000	3	1 at 3	20 at 1	x	x	x	No							
SMD Plastic	AS1PDH to AS1PMH	SMP (DO-220AA)	4 x 2.18 x 1.15	200 to 1000	Typ. 1500	1.5	1.15 at 1.5	20 at 1	175	x	x	1		x	Yes	
	BYG10DH to BYG10YH	SMA (DO-214AC)	5.28 x 2.79 x 2.29	200 to 1600	4000	1.5	1.15 at 1.5	20 at 1 (20 at 0.4)		150	x		x			x
	AS3BJH	SMB (DO-214AA)	5.59 x 3.94 x 2.44	200 to 600	Typ. 1500	3	1.05 at 3	30 at 1		x	x			x		
	AR3PKH to AR3PMH	SMPC (TO-277A)	4.75 x 6.65 x 1.2	200 to 1000	-	3	1.1 at 3	30 at 1		x	x			x		
	AS4PDH to AS4PMH			200 to 1000	-	4	1.1 at 4	30 at 1		x	x			x		

Notes

⁽¹⁾ > 8000 V, 1500 Ω / 100 pF typical rating

⁽²⁾ > 800 V, 0 Ω / 200 pF typical rating