



Shunt-Diode Safety Barriers

Specifications

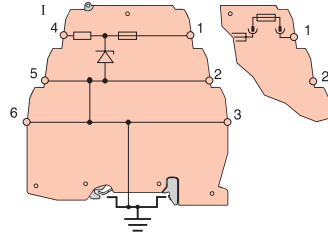
Single Channel, Positive Supply									
Type	Application Number*	Channel Number	V _{WKG} @10 A leakage (V)	V _{MAX} (V)	Maximum end-to-end resistance ()	Fuse / (fuse disc.) rating (mA)	Approval: CI I, II, II: Division 1; Groups -	Wiring Diagram**	ID Number
MZ22P1	-	-	19.0	21.7	189	(50)	A-G	1	K1004
MZ28P	9,11	-	26.0	27.0	332	50	A-G	1	K1007
MZ28P1	9,11	-	26.0	27.6	342	(50)	A-G	1	K1008
MZ28PX1	9,11	-	26.0	27.5	275	(50)	FM: A-G, CSA: C-G	1	K1009
MZ29PX1	9,11	-	25.0	26.5	211	(50)	C-G	1	K1010
* Applications begin on page 10					** Wiring Diagrams located on facing page				
Single Channel, Negative Supply									
MZ28N	-	-	26.0	27.0	332	50	A-G	2	K1005
MZ28N1	-	-	26.0	27.0	342	(50)	A-G	2	K1006
Dual Channel, Positive Supply									
MZ62P1	-	I	8.0	9.1	87	(50)	A-G	3	K1018
		II	8.0	9.1	87	(50)			
MZ64P1	-	I	9.0	10.0	1058	(50)	A-G	3	K1019
		II	9.0	10.0	1058	(50)			
MZ67P1	-	I	13.0	14.2	140	(50)	A-G	3	K1024
		II	13.0	14.2	140	(50)			
Dual Channel, Negative Supply									
Type	Application Number*	Channel Number	V _{WKG} @10 A leakage (V)	V _{MAX} (V)	Maximum end-to-end resistance ()	Fuse / (fuse disc.) rating (mA)	Approval: CI I, II, II: Division 1; Groups -	Wiring Diagram**	ID Number
MZ96N	2	I	23.5	24.4	332	50	A-G	4	K1030
		II	18.5	19.2	424	50			
MZ96N1	2	I	23.5	24.6	342	(50)	A-G	4	K1031
		II	18.5	19.3	434	(50)			
* Applications begin on page 10					** Wiring Diagrams located on facing page				
Dual Channel, Positive Supply, Diode Return									
MZ87P	1,9,10,11	I	26.0	26.8	332	50	A-G	5	K1026
		II	26.0	26.8	33 + 0.9 V	50			
MZ87PX	1,9,11	I	26.0	27.2	261	80	FM: A-G, CSA: C-G	5	K1028
		II	26.0	27.2	30 + 0.9 V	80			
MZ87P1	1,9,10,11	I	26.0	27.3	342	(50)	A-G	5	K1027
		II	26.0	27.3	43 + 0.9 V	(50)			
MZ87PX1	1,9,11	I	26.0	27.3	274	(50)	FM: A-G, CSA: C-G	5	K1029
		II	26.0	27.3	43 + 0.9 V	(50)			
Dual Channel, Low Level Alternating Potential									
MZ55A	6	I	0.6 (1 μA)	3.0	24 ^a	100	A-G	6	K1011
		II	0.6 (1 μA)	3.0	24 ^a	100			
^a 24 Ω ± 0.15 Ω at 20°C, channels track within 0.15 Ω from -20° to 60°C.									

Wiring Diagrams

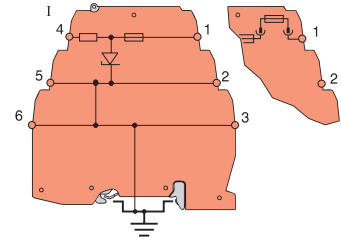
Note:
The represented color of each unit is not the actual color of the safety barrier.
MZ barriers are only available in yellow.

Note:
Roman numerals refer to the channel number while the English numbers refer to the wiring ports.

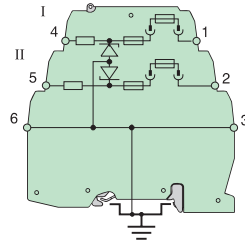
1) Single Channel, Positive Supply



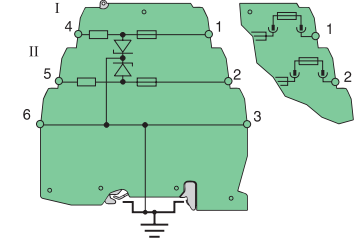
2) Single Channel, Negative Supply



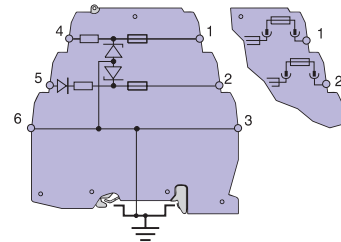
3) Dual Channel, Positive Supply



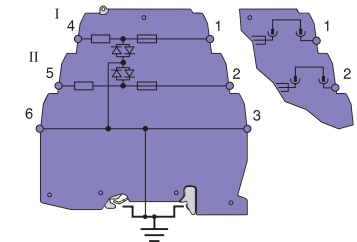
4) Dual Channel, Negative Supply



5) Dual Channel, Positive Supply, Diode Return



6) Dual Channel, Low Level Alternating Potential



Approvals

Model	Channel	Factory Mutual				Canadian Standards Association					
		Entity Parameters				Entity Parameters				Safety Description	
		Voc (Vt)	Isc (It)	Ca AB/CE/DFG	La AB/CE/DFG	Voc (Vt)	Isc (It)	Ca AB/CE/DFG	La AB/CE/DFG	Voc max	min
MZ22P1	I	22	147	0.26/0.78/2.08	1.75/5.25/14.0	22	147	0.26/0.78/2.08	1.75/5.25/14.0	22	150
MZ28P	I	28	93	0.13/0.39/1.04	4.2/12.6/33.6	28	93	0.13/0.39/1.04	4.2/12.6/33.6	28	300
MZ28P1	I	28	93	0.13/0.39/1.04	4.2/12.6/33.6	28	93	0.13/0.39/1.04	4.2/12.6/33.6	28	300
MZ28PX1	I	28	120	0.13/0.39/1.04	2.47/7.41/19.7	28	120	---/0.39/1.04	---/7.41/21.0	28	234
MZ29PX1	I	28	171	---/0.39/1.04	---/5.0/11.4	28	171	---/0.39/1.04	---/5.0/11.0	28	164
MZ28N	I	28	93	0.13/0.39/1.04	4.2/12.6/33.6	28	93	0.13/0.39/1.04	4.2/12.6/33.6	28	300
MZ28N1	I	28	93	0.13/0.39/1.04	4.2/12.6/33.6	28	93	0.13/0.39/1.04	4.2/12.6/33.6	28	300
MZ62P1	Each	10	200	3.0/9.0/24.0	0.52/4.3/7.6	10	200	3.0/9.0/24.0	0.52/4.3/7.6	10	50
	I & II	(11)	(400)	2.0/6.0/16.0	0.15/0.79/1.99	11	400	2.0/6.0/16.0	0.15/0.79/1.99	-	-
MZ64P1	Each	10	10	3.0/9.0/24.0	328/690/1040	10	10	3.0/9.8/24.8	328/690/1040	10	1000
	I & II	(11)	(20)	2.0/6.0/16.0	84/298/742	11	20	2.0/6.0/16.0	84/298/742	-	-
MZ67P1	Each	15	150	0.75/2.25/6.0	1.39/4.95/13.2	15	150	0.75/2.25/6.0	1.39/4.95/13.2	15	100
	I & II	(17)	(300)	0.5/1.5/4.0	0.21/0.96/2.56	17	300	0.5/1.5/4.0	0.21/0.96/2.56	-	-
MZ96N, MZ96N1	I	26	87	0.15/0.45/1.20	4.75/14.2/38.0	26	87	0.15/0.45/1.20	4.75/14.2/38.0	28	300
	II	20	51	0.35/1.05/2.8	4.75/14.2/38.0	20	51	0.35/1.05/2.8	4.75/14.2/38.0	20	390
	I & II	(28)	(136)	0.14/0.43/1.14	1.71/8.4/16.0	28	136	0.14/0.43/1.14	1.71/8.4/16.0	-	-
MZ87P, MZ87P1	I	28	93	0.13/0.39/1.04	4.2/12.6/33.6	28	93	0.13/0.39/1.04	4.2/12.6/33.6	28	300
	II	28	0	0.13/0.39/1.04	61.5/227/506	28	0	0.13/0.39/1.04	61.5/227/506	28	diode
	I & II	(30)	(93)	0.12/0.36/0.97	4.2/12.6/33.6	30	93	0.12/0.36/0.97	4.2/12.6/33.6	-	-
MZ87PX, MZ87PX1	I	28	120	0.13/0.39/1.04	2.47/7.41/21.0	28	120	---/0.39/1.04	---/7.41/21.0	28	234
	II	28	0	0.13/0.39/1.04	61.5/227/506	28	0	---/0.39/1.04	---/227.0/506.0	28	diode
	I & II	(31)	(120)	0.11/0.33/0.90	2.47/7.41/21.0	31	120	---/0.33/0.88	---/7.41/21.0	-	-
MZ55A	Each	3	300	1000/3000/800	0.24/1.38/3.68	3	300	1000/3000/8000	0.24/1.38/3.68	3	10
	I & II	(6)	(600)	116/349/932	0.09/0.13/1.0	6	600	116/349/932	0.09/0.13/1.0	-	-