

YODEN ULTRA-RAPID FUSE

ヨーデン ウルトララピッド ヒューズ
(YODEN FUSE)

300V 半導体保護用限流ヒューズ UR30型
600V UR60型

300V CURRENT LIMITING FUSES FOR PROTECTING SEMICONDUCTORS TYPE UR30
600V TYPE UR60



新方式 ニューセラミックヒューズ ウルトララピッド ヒューズ
NEW TYPE New Ceramic Fuse ULTRA-RAPID FUSE

株式会社 洋電エンジニアリング
YODEN ENGINEERING CO., LTD.

高性能、大遮断容量を誇る半導体保護用高速度限流形ヒューズ

HIGH SPEED CURRENT LIMITING FUSES FOR PROTECTING SEMICONDUCTORS WITH SMALL OPERATING I²t AND LARGE BREAKING CAPACITY.

高性能、大遮断容量を誇る半導体保護用高速度限流形ヒューズ

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●まえがき

本ヒューズエレメントは、従来のエレメント製作の常識を破る革新的な製法で量産されるもので、溶断特性、遮断特性及び機械的強度など大幅に改良された新商品です。なお本品はヒューズ規定 IEC60269-4 (1986) 及びJEM1383 (1979) に準じて試験検証してあります。
UL規格認定取得済 (FILE NO E192188) (10A~500A)
(また、UL規格お求めの節は、その旨ご連絡下さい。)

●FOREWORD

This fuse link is manufactured on the basis of mass production by an innovative manufacturing method that has made a breakthrough in the common sense of conventional manufacture of fuse element. The new product has been improved extensively as to pre-arcing time — current characteristic, breaking capacity and mechanical strength.

Also this product was tested and verified in compliance correspondently to Fuse Rules IEC 60269-4 (1986) and JEM 1383 (1979). UL recognized component (FILE NO E192188) (10A~500A)
(In case of UL type, please contact us)

UR3 - 型および UR3 - I-S 型
AND

■定格および性能 RATINGS AND PERFORMANCE

型式 Type			定格電流 Rated Current A	I ² t 値(A ² s)			電力損失 Power Dissipation W	直流回路への適用 Application for DC Circuit				
表示器なし Without Indicator	表示器つき With Indicator	表示器マイクロswつき With Indicator and Micro Switch		溶断 I ² t Pre-arcing I ² t	動作 I ² t Operating I ² t			電圧 Voltage	時定数 Time Constant	短絡電流 Short Circuit Current		
					at 250V	at 300V						
UR31-10	UR31-10I	UR31-10IS	10	1	4	4	250V	47.5ms	20kA			
UR31-20	UR31-20I	UR31-20IS	20	6	40	50						
UR31-30	UR31-30I	UR31-30IS	30	10	90	110						
UR31-40	UR31-40I	UR31-40IS	40	25	220	270						
UR31-50	UR31-50I	UR31-50IS	50	50	390	480						
UR31-60	UR31-60I	UR31-60IS	60	95	640	790						
UR31-75	UR31-75I	UR31-75IS	75	300	1400	1800						
UR32B-60	UR32B-60I	UR32B-60IS	60	80	550	680				400V	10ms	20kA
UR32B-80	UR32B-80I	UR32B-80IS	80	200	1100	1400						
UR32B-100	UR32B-100I	UR32B-100IS	100	360	2100	2700						
UR32B-120	UR32B-120I	UR32B-120IS	120	560	3200	3900						
UR33-90	UR33-90I	UR33-90IS	90	320	1900	2400	600V	11ms	20kA			
UR33-120	UR33-120I	UR33-120IS	120	560	3000	3700						
UR33-150	UR33-150I	UR33-150IS	150	740	4200	5200						
UR33-180	UR33-180I	UR33-180IS	180	1400	5700	7100						
UR36-150	UR36-150I	UR36-150IS	150	800	3500	4400						
UR36-200	UR36-200I	UR36-200IS	200	2000	8700	10000						
UR36-250	UR36-250I	UR36-250IS	250	4200	16000	20000						
UR36-300	UR36-300I	UR36-300IS	300	6800	29000	35000						
UR37-350	UR37-350I	UR37-350IS	350	9000	50000	60000						
UR37-400	UR37-400I	UR37-400IS	400	14000	73000	90000						
UR37-450	UR37-450I	UR37-450IS	450	20000	110000	130000						
UR37-500	UR37-500I	UR37-500IS	500	32000	160000	190000						
UR37-600	UR37-600I	UR37-600IS	600	40000	184000	220000						
UR37-700	UR37-700I	UR37-700IS	700	60000	280000	340000						
UR37-800	UR37-800I	UR37-800IS	800	88000	400000	480000						
UR37-900	UR37-900I	UR37-900IS	900	132000	600000	750000						

定格電圧 : 300V AC(r.m.s.)
動作過電圧 : 800V 以下
遮断容量 : 100kA at AC300V

Rated Voltage : 300V AC(r.m.s.)
Switching Voltage : Less Than 800V
Breaking Capacity : 100kA at AC300V

●特長

- ① 大きな遮断容量とすぐれた限流遮断
- ② 非常に小さな動作 I²t と低い動作過電圧で、半導体保護に最適
- ③ 特性にバラツキが少なく経年変化がない
- ④ 小型軽量であるので装置が小さくなる
- ⑤ 直流電流も遮断可能

●SPECIAL FEATURES

- (1) Large breaking capacity and current limiting interruption.
- (2) Most suited to the protection of semiconductors because of the very small operating I²t and low switching voltage.
- (3) There is no secular variance providing little variance in characteristics.
- (4) Because of small size and light weight, the device becomes small.
- (5) Interruption is possible also for DC current.

UR6 - 型および UR6 - I-S 型
AND

■定格および性能 RATINGS AND PERFORMANCE

型式 Type			定格電流 Rated Current A	I ² t 値(A ² s)			電力損失 Power Dissipation W	直流回路への適用 Application for DC Circuit				
表示器なし Without Indicator	表示器つき With Indicator	表示器マイクロswつき With Indicator and Micro Switch		溶断 I ² t Pre-arcing I ² t	動作 I ² t Operating I ² t			電圧 Voltage	時定数 Time Constant	短絡電流 Short Circuit Current		
					at 440V	at 600V						
UR61-10	UR61-10I	UR61-10IS	10	2	15	20	320V	50ms	20kA			
UR61-20	UR61-20I	UR61-20IS	20	12	64	90						
UR61-30	UR61-30I	UR61-30IS	30	34	200	290						
UR61-40	UR61-40I	UR61-40IS	40	72	400	560						
UR61-50	UR61-50I	UR61-50IS	50	125	760	1100						
UR61-60	UR61-60I	UR61-60IS	60	200	1350	1800						
UR61-75	UR61-75I	UR61-75IS	75	600	3800	5300						
UR62-60	UR62-60I	UR62-60IS	60	150	950	1300				600V	11ms	20kA
UR62-80	UR62-80I	UR62-80IS	80	440	2300	3200						
UR62-100	UR62-100I	UR62-100IS	100	760	4700	6500						
UR62-120	UR62-120I	UR62-120IS	120	1200	7700	10500						
UR63-90	UR63-90I	UR63-90IS	90	580	2800	4000	600V	11ms	20kA			
UR63-120	UR63-120I	UR63-120IS	120	920	5700	8000						
UR63-150	UR63-150I	UR63-150IS	150	2100	12500	18000						
UR63-180	UR63-180I	UR63-180IS	180	3400	17500	25000						
UR66-150	UR66-150I	UR66-150IS	150	1600	8000	11500						
UR66-200	UR66-200I	UR66-200IS	200	4400	21500	30000						
UR66-250	UR66-250I	UR66-250IS	250	7800	38000	54000						
UR66-300	UR66-300I	UR66-300IS	300	12500	57000	80000						
UR67-350	UR67-350I	UR67-350IS	350	32000	110000	150000						
UR67-400	UR67-400I	UR67-400IS	400	48000	160000	220000						
UR67-450	UR67-450I	UR67-450IS	450	72000	230000	320000						
UR67-500	UR67-500I	UR67-500IS	500	90000	300000	420000						
UR67-600	UR67-600I	UR67-600IS	600	132000	420000	560000						
UR67-700	UR67-700I	UR67-700IS	700	216000	530000	760000						
UR67-800	UR67-800I	UR67-800IS	800	312000	900000	1260000						
UR67-900	UR67-900I	UR67-900IS	900	392000	1100000	1520000						

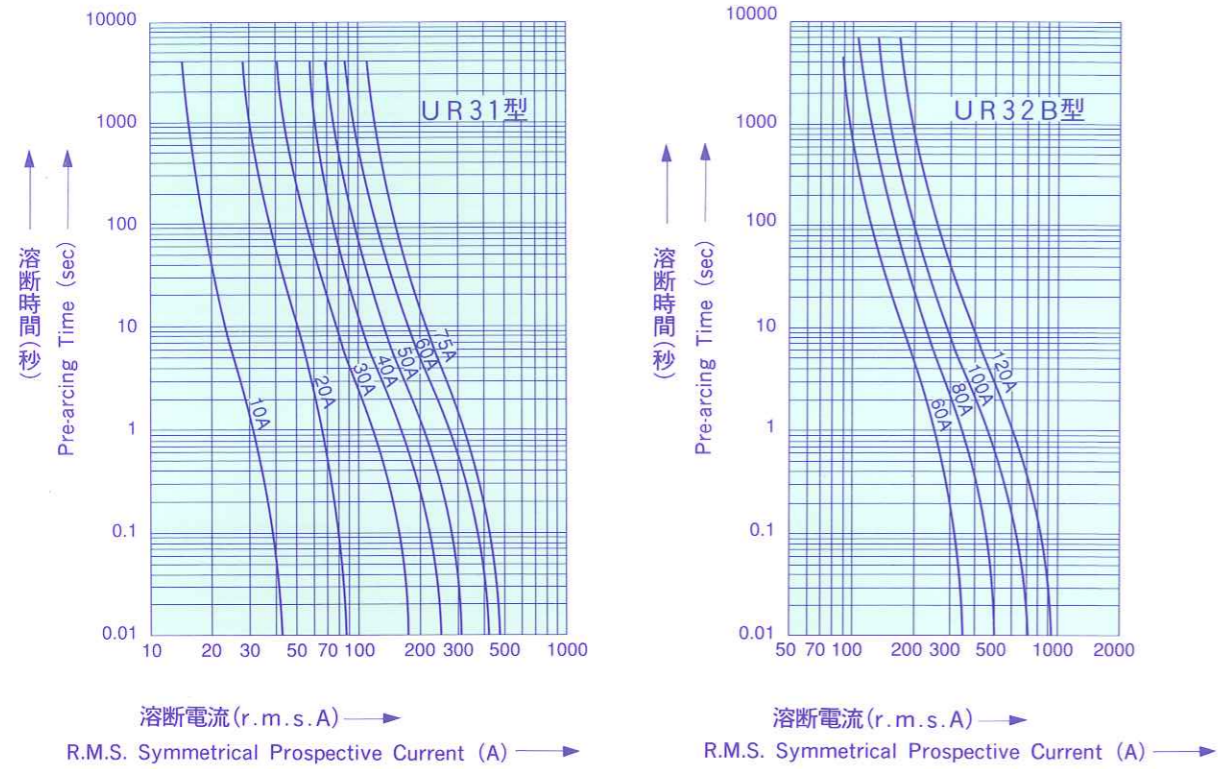
定格電圧 : 600V AC(r.m.s.)
動作過電圧 : 1350V 以下
遮断容量 : 100kA at AC600V

Rated Voltage : 600V AC(r.m.s.)
Switching Voltage : Less Than 1350V
Breaking Capacity : 100kA at AC600V

UR31 UR32

溶断時間—電流特性

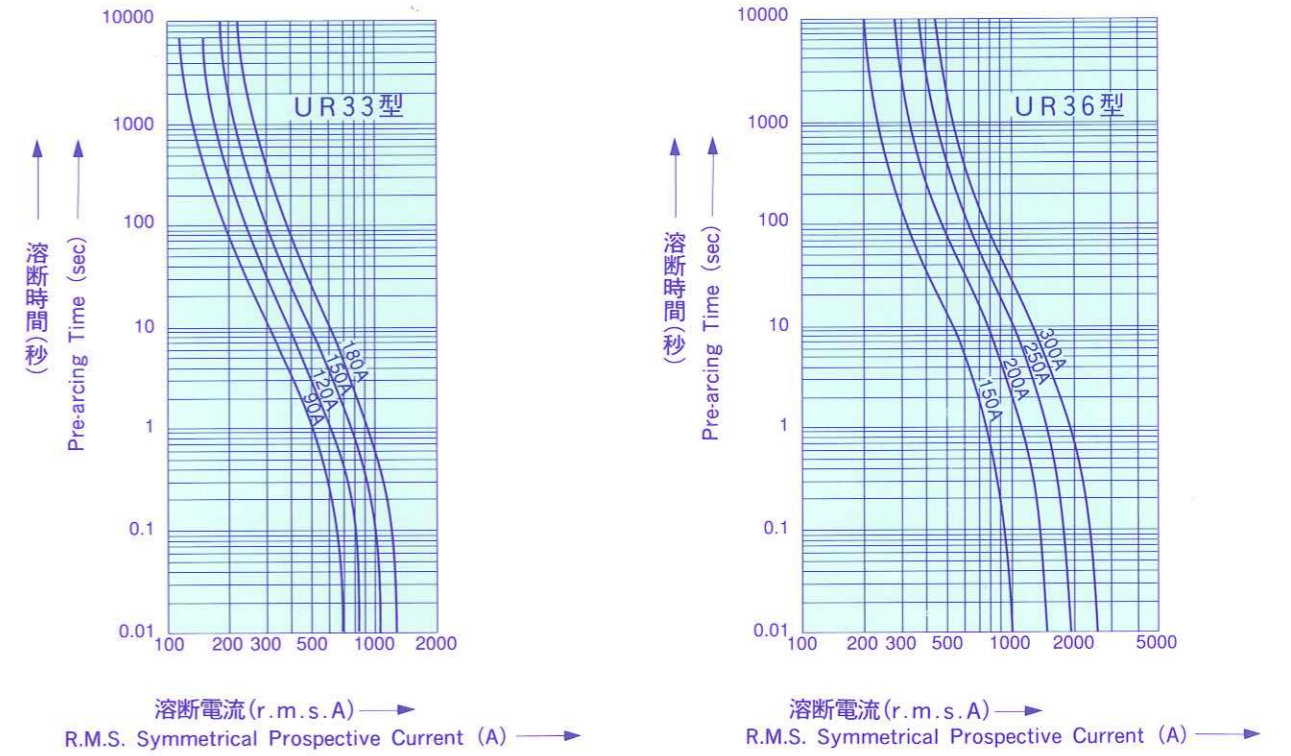
Pre-arcing Time—Current Characteristics



UR33 UR36

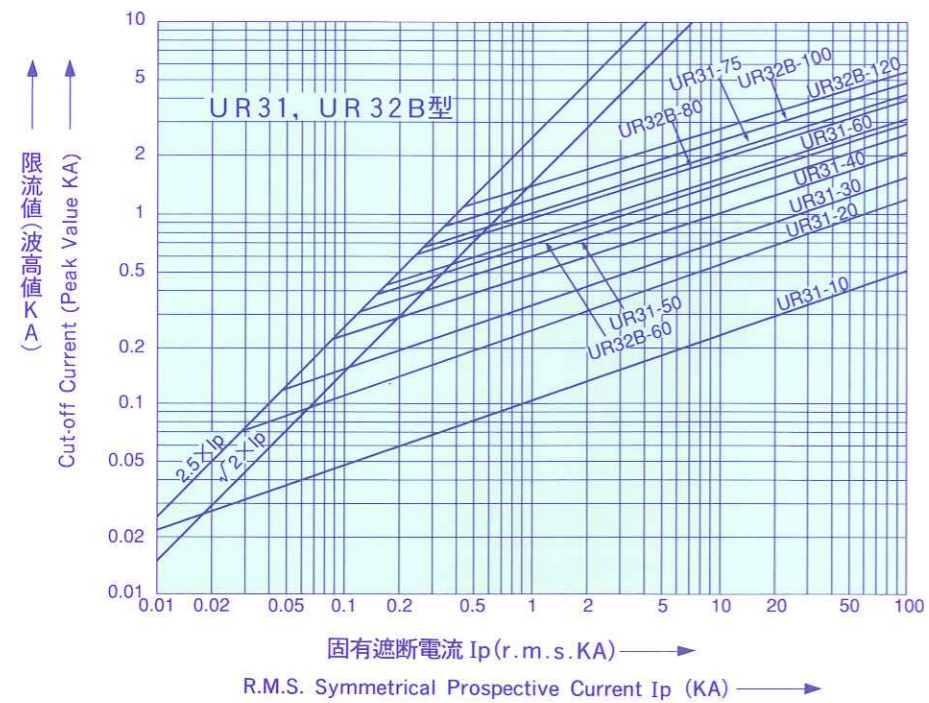
溶断時間—電流特性

Pre-arcing Time—Current Characteristics



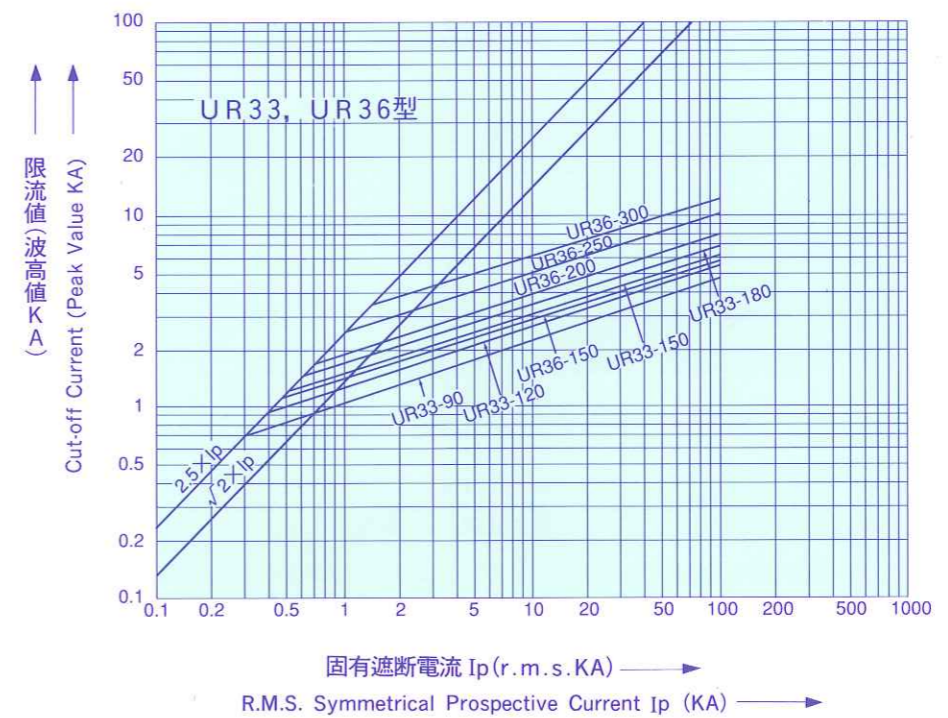
限流特性

Cut-off Current Characteristics



限流特性

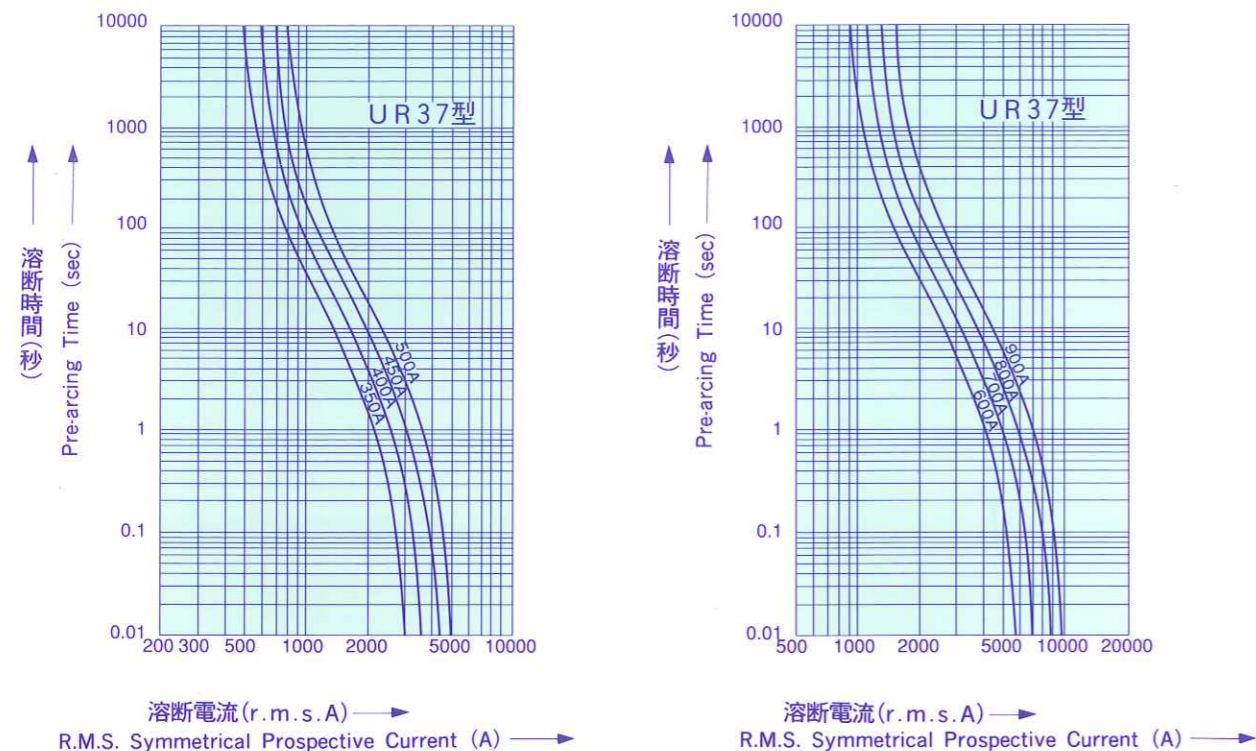
Cut-off Current Characteristics



UR37

溶断時間—電流特性

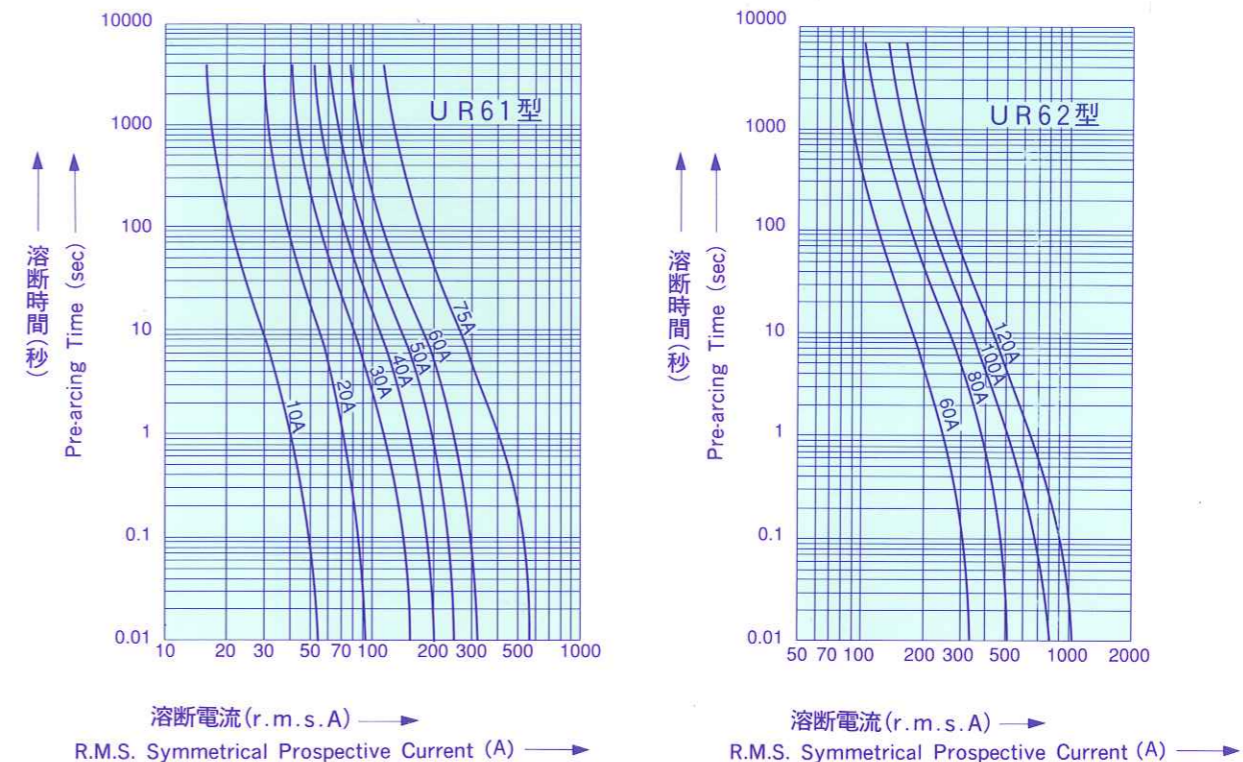
Pre-arcing Time—Current Characteristics



UR61 UR62

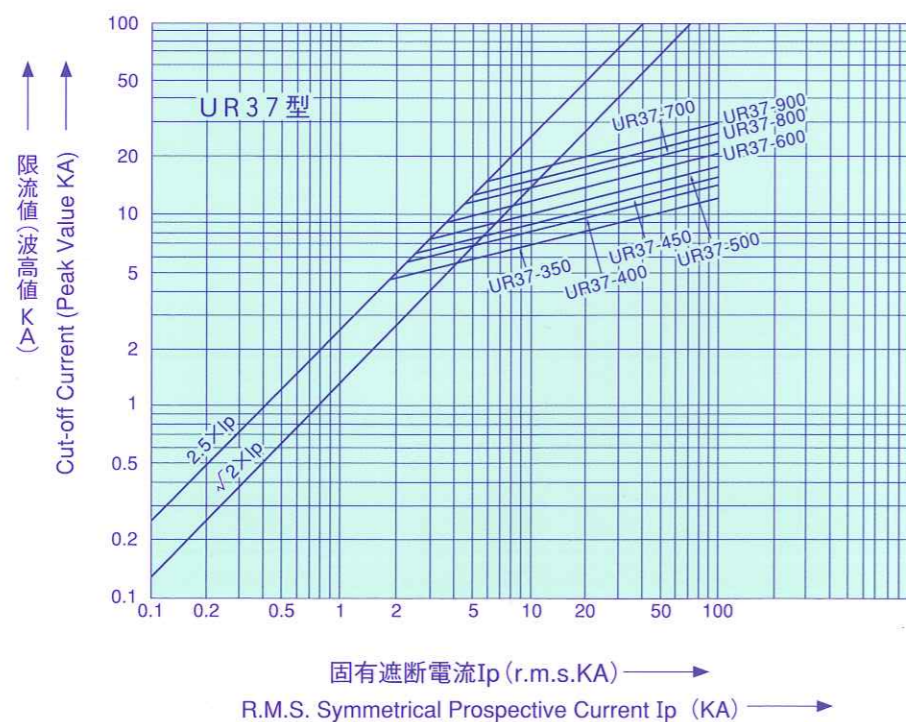
溶断時間—電流特性

Pre-arcing Time—Current Characteristics



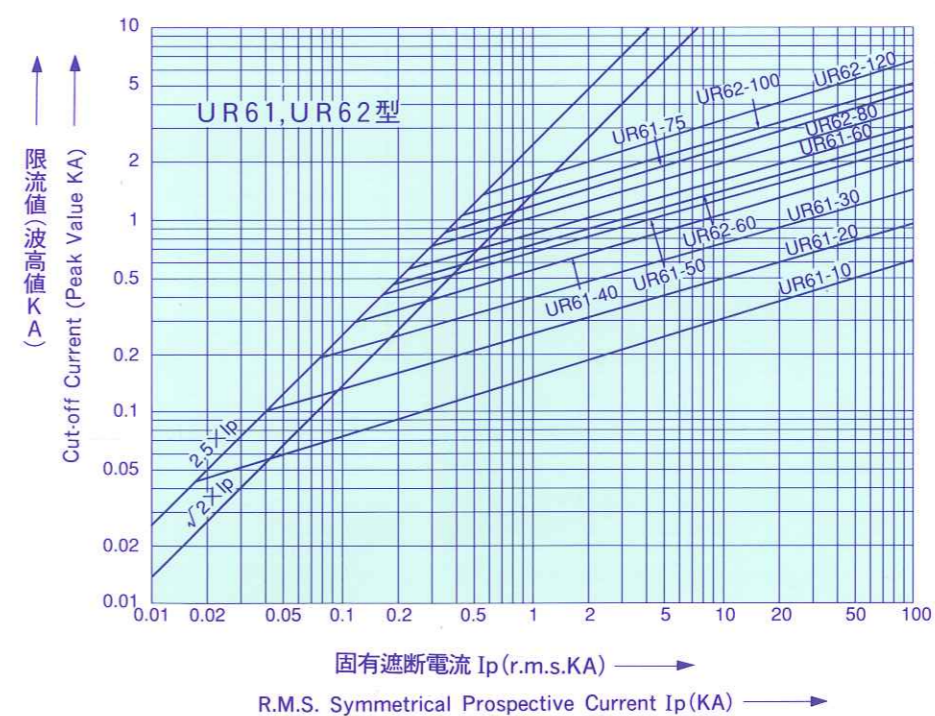
限流特性

Cut-off Current Characteristics



限流特性

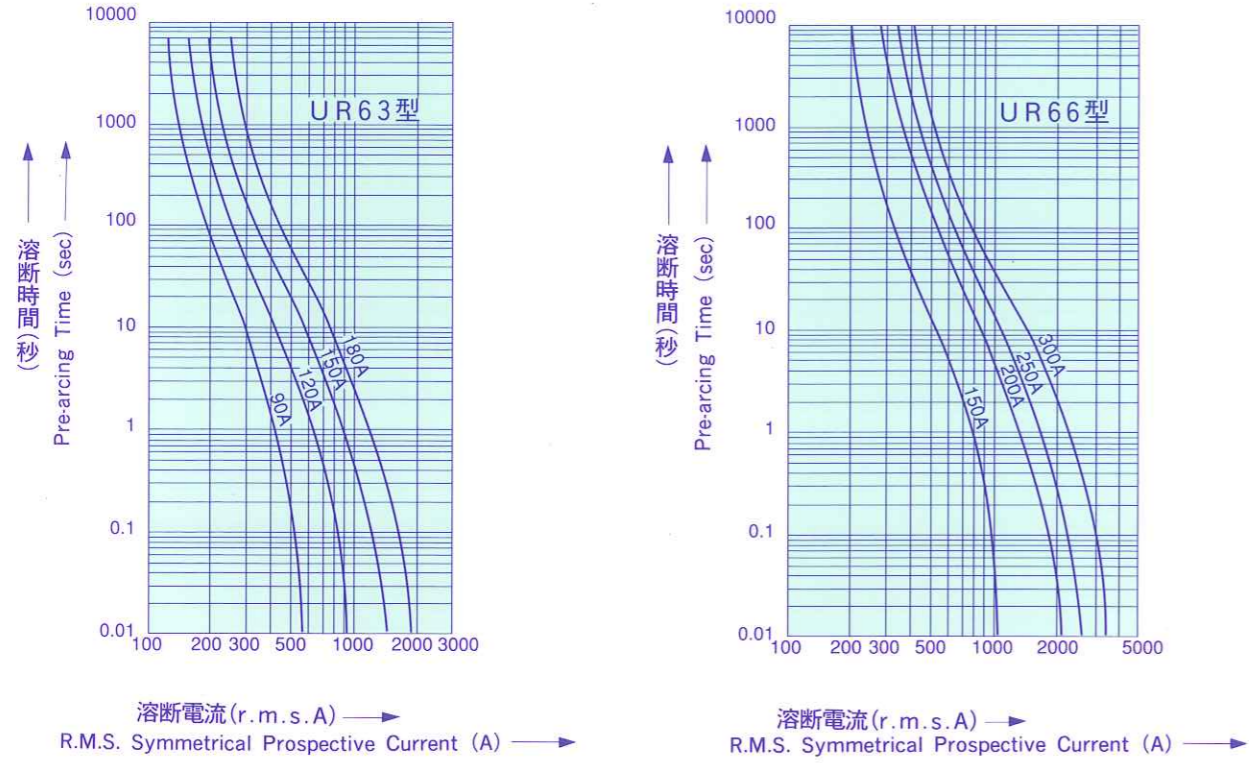
Cut-off Current Characteristics



UR63 UR66

溶断時間—電流特性

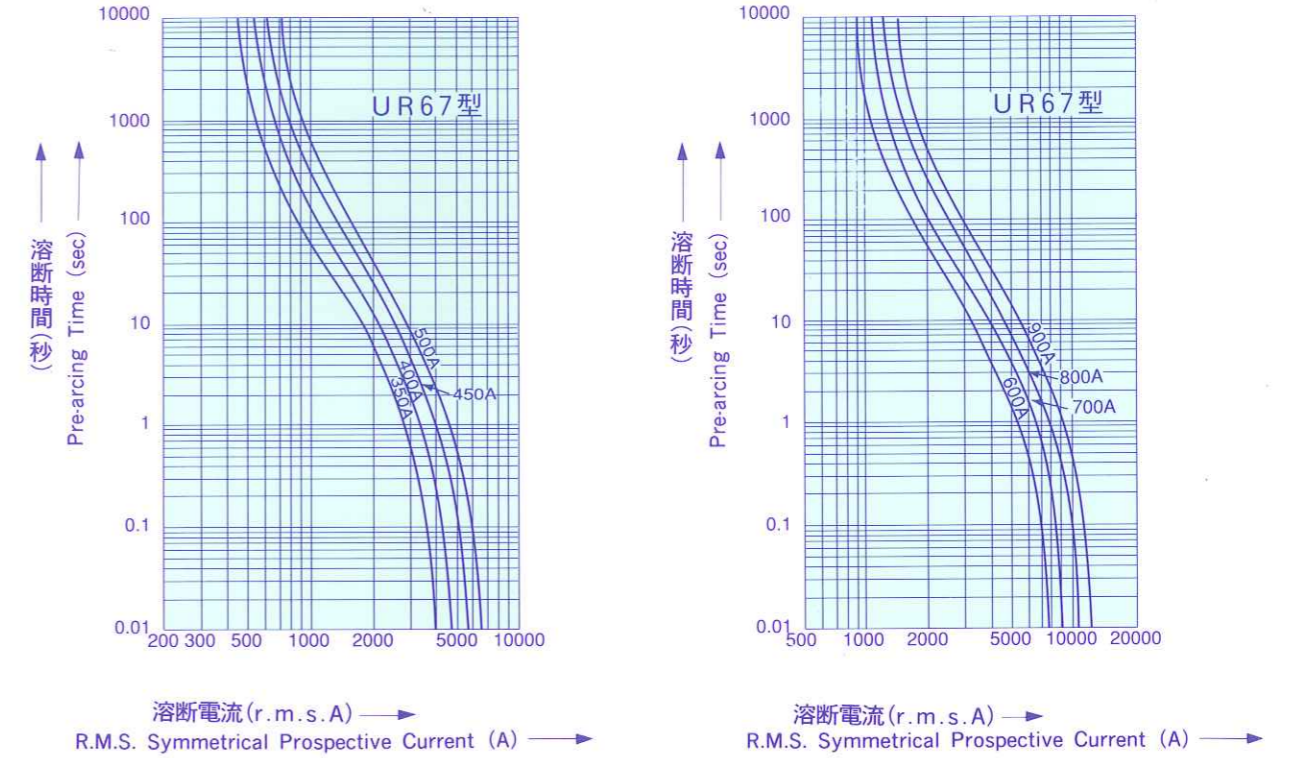
Pre-arcing Time—Current Characteristics



UR67

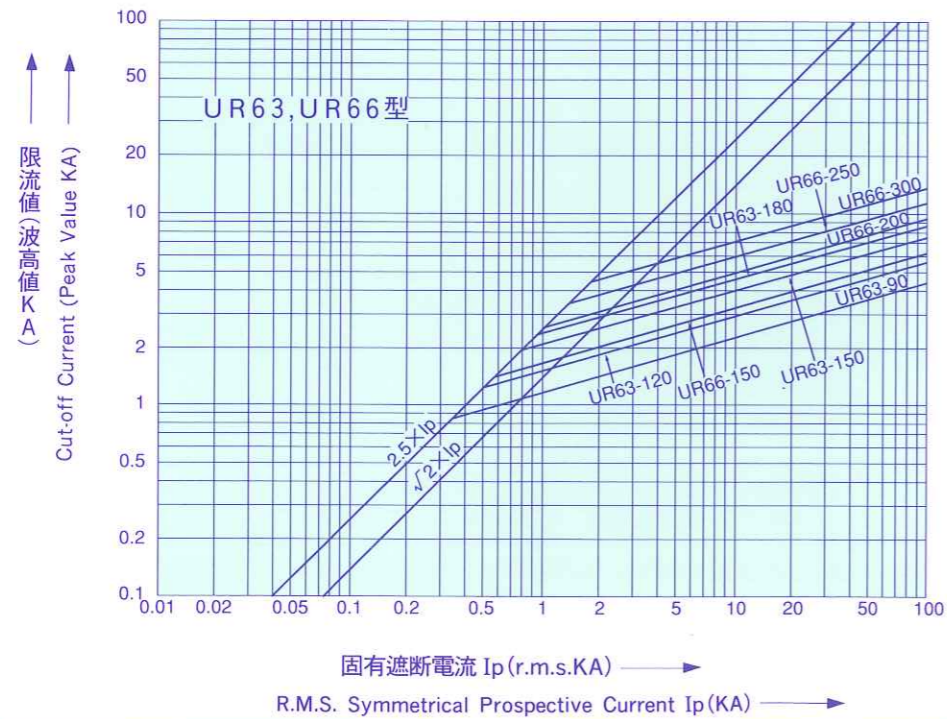
溶断時間—電流特性

Pre-arcing Time—Current Characteristics



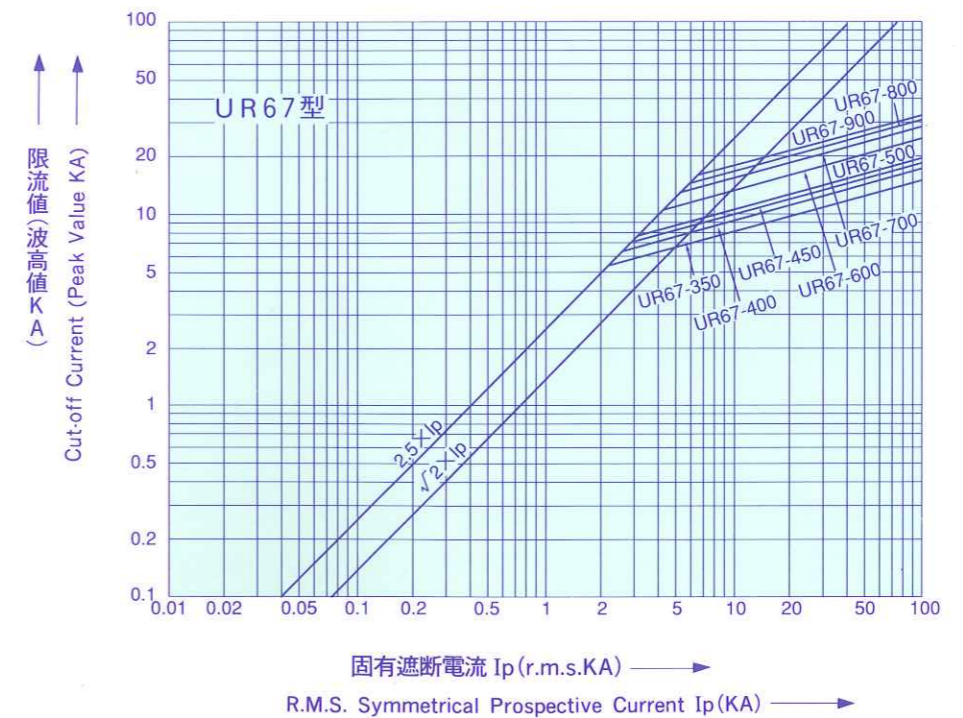
限流特性

Cut-off Current Characteristics



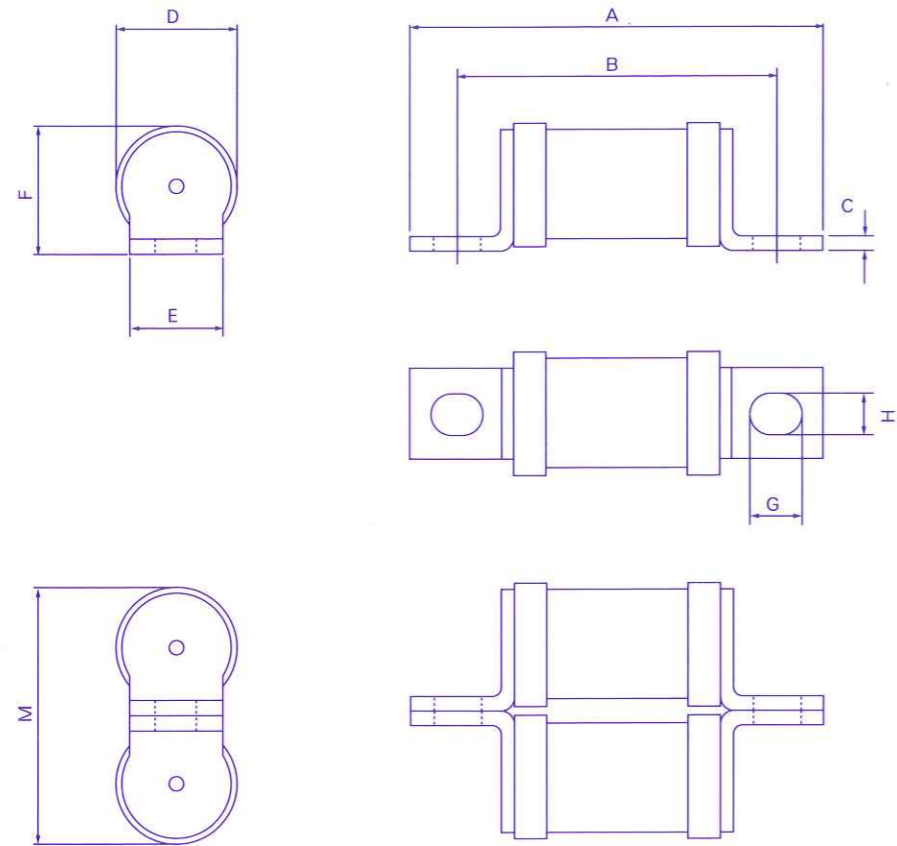
限流特性

Cut-off Current Characteristics



UR30/60形ヒューズ外形寸法 (表示器なし)

Type UR30/60 Fuse Outline Dimensions (Without Indicator)

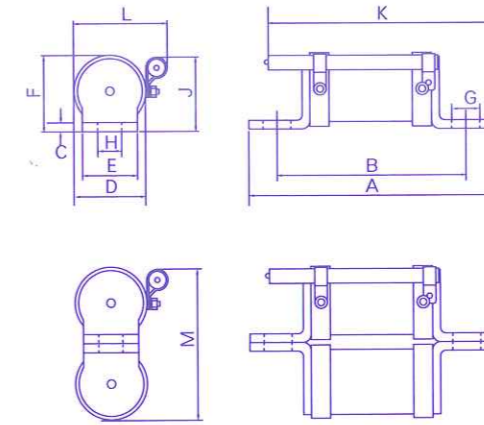


型式 Type	定格電流 Rated Current A	外形寸法 Outline Dimension mm								
		A	B	C	D	E	F	G	H	M
UR31	10・20・30・40・50・60・75	56	42	2	18.2	12	19.1	8.5	6.5	-
UR32B	60・80・100・120	58	42	2.5	21.3	15	21.7	11	6.5	-
UR33	90・120・150・180	80	58	3	26.8	20	27.4	11	9	-
UR36	150・200・250・300	85	60	3	35.6	25	38.8	16	10.3	-
UR37	350・400・450・500	86	62	3.5	46.5	32.4	51.5	16	10.3	-
* UR37	600・700・800・900	86	62	3.5	46.5	32.4	51.5	16	10.3	103
UR61	10・20・30・40・50・60・75	76	62	2	18.2	12	19.1	8.5	6.5	-
UR62	60・80・100・120	90	70	2.5	21.3	15	21.7	11	9	-
UR63	90・120・150・180	90	70	3	26.8	20	27.4	11	9	-
UR66	150・200・250・300	106	81	3	35.6	25	38.8	16	10.3	-
UR67	350・400・450・500	106	81	3.5	46.5	32.4	51.5	16	10.3	-
* UR67	600・700・800・900	106	81	3.5	46.5	32.4	51.5	16	10.3	103

* : ダブル形 * : Double Type

UR30/60形ヒューズ外形寸法 (表示器つき)

Type UR30/60 Fuse Outline Dimensions (With Indicator)

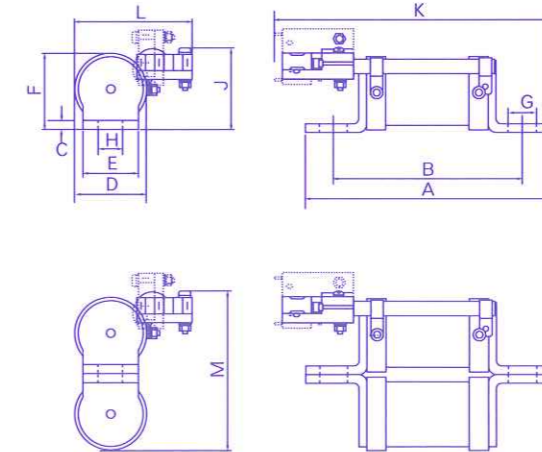


型式 Type	外形寸法 Outline Dimensions mm											
	A	B	C	D	E	F	G	H	J	K	L	M
UR31	56	42	2	18.2	12	19.1	8.5	6.5	23.8	56.8	27	-
UR32B	58	42	2.5	21.3	15	21.7	11	6.5	24.8	57.8	30.1	-
UR33	80	58	3	26.8	20	27.4	11	9	27.8	68.3	35.6	-
UR36	85	60	3	35.6	25	38.8	16	10.3	34.8	70.2	44.4	-
UR37	86	62	3.5	46.5	32.4	51.5	16	10.3	42	71.2	55.3	-
* UR37	86	62	3.5	46.5	32.4	51.5	16	10.3	42	71.2	55.3	93.5
UR61	76	62	2	18.2	12	19.1	8.5	6.5	23.8	75.8	27	-
UR62	90	70	2.5	21.3	15	21.7	11	9	24.8	81.8	30.1	-
UR63	90	70	3	26.8	20	27.4	11	9	27.8	81.8	35.6	-
UR66	106	81	3	35.6	25	38.8	16	10.3	34.8	90.1	44.4	-
UR67	106	81	3.5	46.5	32.4	51.5	16	10.3	42	91.1	55.3	-
* UR67	106	81	3.5	46.5	32.4	51.5	16	10.3	42	91.1	55.3	93.5

* : ダブル形 * : Double Type

UR30/60形ヒューズ外形寸法 (表示器、マイクロスイッチつき)

Type UR30/60 Fuse Outline Dimensions (With Indicator and Micro Switch)



型式 Type	外形寸法 Outline Dimensions mm											
	A	B	C	D	E	F	G	H	J	K	L	M
UR31	56	42	2	18.2	12	19.1	8.5	6.5	25	75	35.4	-
UR32B	58	42	2.5	21.3	15	21.7	11	6.5	26	76	38.5	-
UR33	80	58	3	26.8	20	27.4	11	9	29	86.5	44	-
UR36	85	60	3	35.6	25	38.8	16	10.3	36	88.4	52.8	-
UR37	86	62	3.5	46.5	32.4	51.5	16	10.3	43.2	89.4	63.7	-
* UR37	86	62	3.5	46.5	32.4	51.5	16	10.3	43.2	89.4	63.7	94.7
UR61	76	62	2	18.2	12	19.1	8.5	6.5	25	94	35.4	-
UR62	90	70	2.5	21.3	15	21.7	11	9	26	100	38.5	-
UR63	90	70	3	26.8	20	27.4	11	9	29	100	44	-
UR66	106	81	3	35.6	25	38.8	16	10.3	36	108.3	52.8	-
UR67	106	81	3.5	46.5	32.4	51.5	16	10.3	43.2	109.3	63.7	-
* UR67	106	81	3.5	46.5	32.4	51.5	16	10.3	43.2	109.3	63.7	94.7

* : ダブル形 * : Double Type