

# 821cp gRB

## SEMICONDUCTOR PROTECTION FUSES



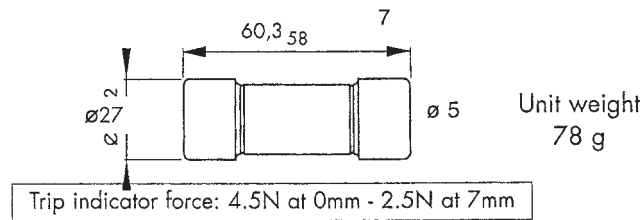
**800V AC**  
**gRB from 8 to 110A**  
**SIZES: 27 X 60**

**Features/Benefits**

- **Extremely high Interrupting rating Fuses:**  
Protection of power Semiconductors complying with IEC standards 269-1 and 4
- **800V Voltage Rating** according to IEC 33
- **gR Class** as per IEC 269-4
  - Full range protection
  - Improved safety and protection
  - Allows selective coordination
- With built in Trip Indicator



**Dimensions**



**APPLICATIONS DATA**

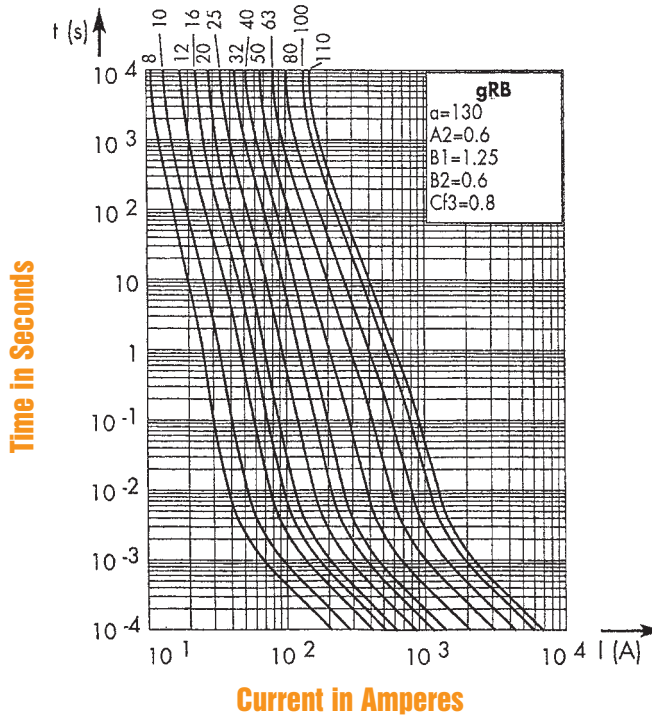
Voltage rating $U_N$ (V)	Class	Current rating $I_N$ (A)	Melting $I^2t @ 1\text{ ms}$ $I^2t_p$ (A <sup>2</sup> s)	Total clearing $I^2t @ U_N$ $I^2t_c$ (A <sup>2</sup> s)	Watt losses		Tested interrupting rating	CATALOG NO.	REF
					0.8 $I_N$	$I_N$			
800	gRB	8	4.25	70	1.2	2.0	175 kA @ 700 V	821 CP GRB27.60 8	R221436
		10	8.0	100	1.3	2.3		821 CP GRB27.60 10	S221437
		12	17.0	180	1.4	2.5		821 CP GRB27.60 12	T221438
		16	26.5	250	1.9	3.5		821 CP GRB27.60 16	V221439
		20	38.5	350	2.4	4.0		821 CP GRB27.60 20	W221440
		25	73.0	600	2.8	5.0		821 CP GRB27.60 25	X221441
		32	130	1000	3.5	6.0	90 kA @ 800 V	821 CP GRB27.60 32	Y221442
		40	195	1400	4.7	8.0		821 CP GRB27.60 40	Z221443
		50	430	2700	4.8	8.5		821 CP GRB27.60 50	A221444
		63	965	5500	5.6	10		821 CP GRB27.60 63	B221445
		80	1890	11000	6.4	11.5		821 CP GRB27.60 80	C221446
		100	3480	19000	7.4	13		821 CP GRB27.60 100	D221447
		110	4670	27000	7.7	14		821 CP GRB27.60 110	E221448

Minimum operating voltage for trip-indicator: 20 V

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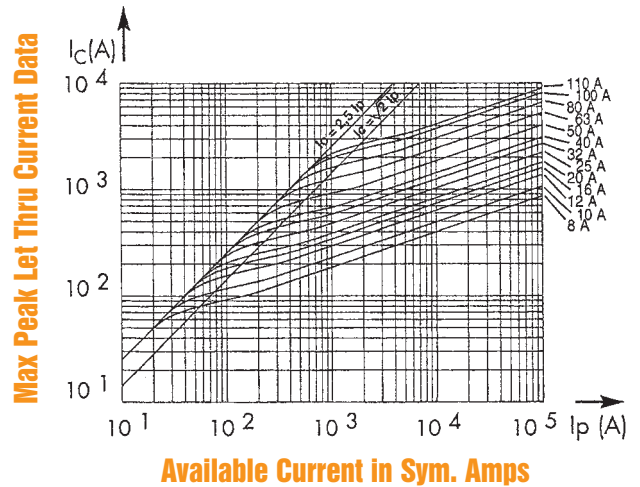
## SEMICONDUCTOR PROTECTION FUSES

### Melting Time Current Data



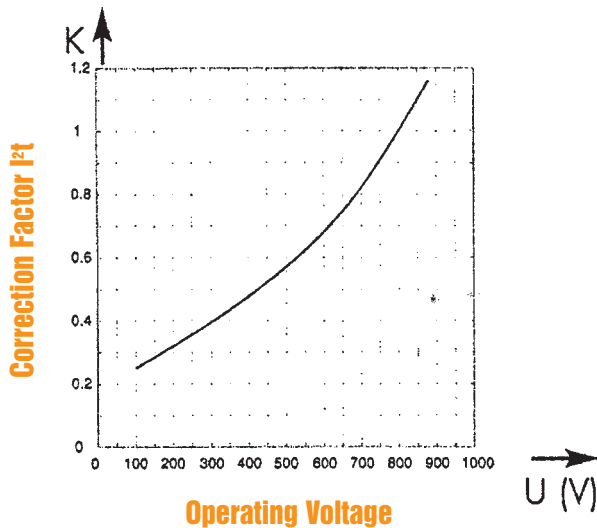
Curves show, for each rated current, pre-arcing time vs. R.M.S. pre-arcing current. Tolerance for mean pre-arcing current  $\pm 8\%$ .

### Peak Let Thru Current Data



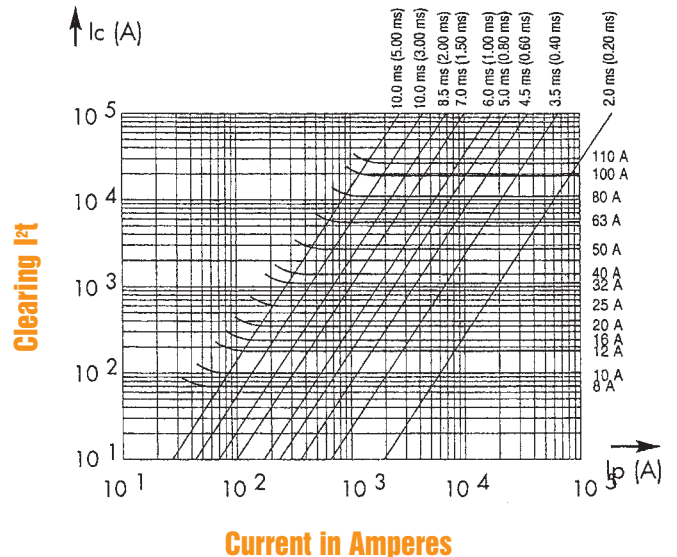
Curves show, for each rating, value of peak let-through current  $I_C$  as a function of available fault current  $I_p$ .

### Clearing I<sup>2</sup>t vs. Operating Voltage



Correction Factor to determine the clearing  $I^2t$  of a fuse operating below its rated voltage

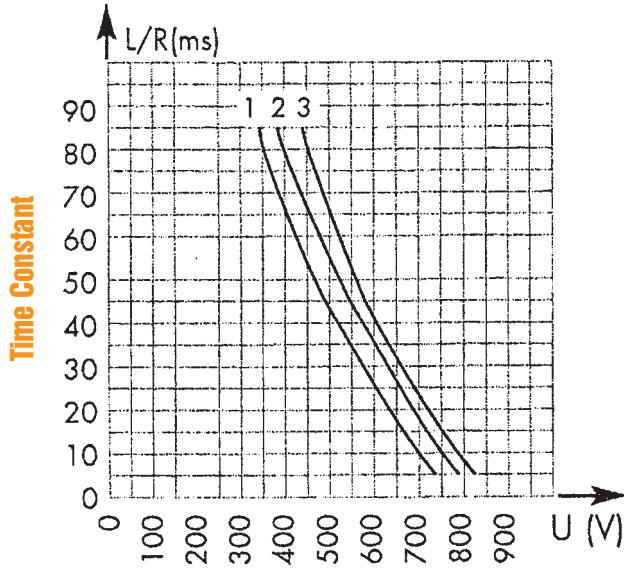
### Total Clearing I<sup>2</sup>t



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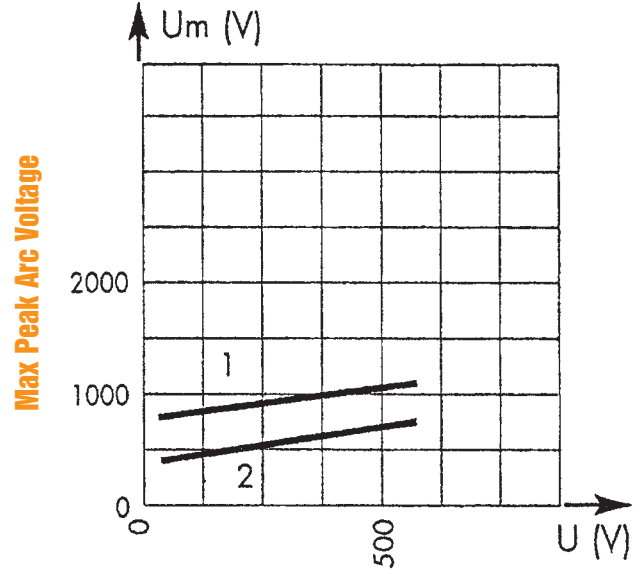
### DC Voltage Capabilities vs. Time Constant



DC Voltage Capability

Provides the DC voltage capability of a fuse as a function of the circuit time constant.

### DC Peak Arc Voltage



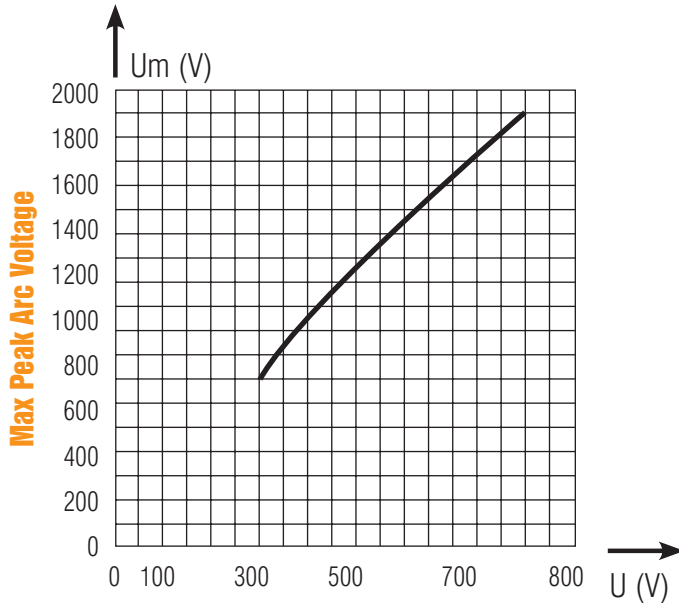
DC System Voltage

1 - L/R = 60 ms / 2 - L/R = 30 ms

Above: Curves indicate peak arc voltage U which may appear across fuse terminals of working voltage U, for different values of time constant L/R of the fault circuit.

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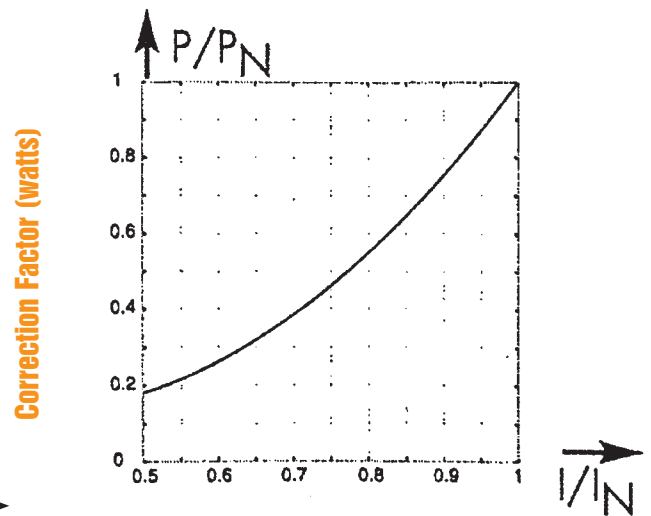
### Peak Arc Voltage



System Voltage

Determines the peak arc voltage across the fuse terminals as a function of applied voltage.

### Watts loss Correction



% of Rating

Correction factor to determine watts loss value of a fuse operating below its rated current.