

# CAR&CART80 SERIES

# Automotive Relay

80 Amp



File No.:E75887



File No.:R 50304236



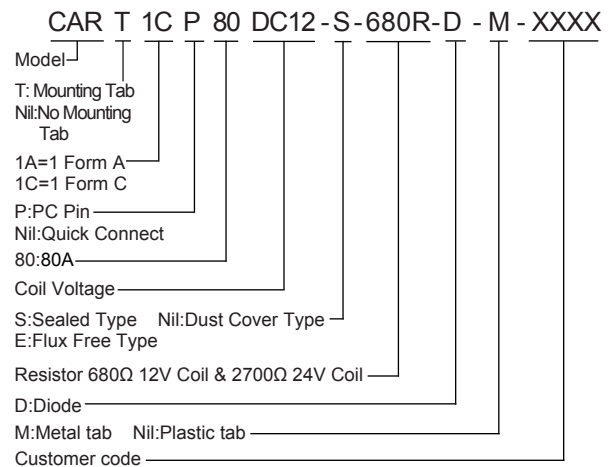
## FEATURES

- High contact rating 80A
- 1 Form A and 1 Form C arrangements
- Quick connect and P.C.Board terminals
- Mounting Tab option

## CONTACT RATINGS

Contact Arrangement	1A, 1C
Contact Resistance	30mΩ (1A 24VDC)
Contact Material	Silver Alloy
Contact Rating(Resistive)	NO:80A/14VDC NC:60A/14VDC
Max. Switching Voltage	75VDC
Max. Switching Current	80A
Max. Switching Power	1120W
Mechanical Life	1×10 <sup>6</sup> operations
Electrical Life	1×10 <sup>5</sup> operations

## ORDERING INFORMATION



## CHARACTERISTICS

Insulation Resistance	100MΩ (at 500VDC)	
Dielectric Strength	Between coil & contacts	500VAC 1min
	Between open contacts	500VAC 1min
Operate time (at nomi. volt.)	≤7ms	
Release time (at nomi. volt.)	≤5ms	
Humidity	85% RH 40°C	
Ambient temperature	-40°C ~ +125°C	
Shock Resistance	294m/s <sup>2</sup>	
Vibration resistance	10Hz ~ 55Hz 1.27mm DA	
Unit weight	46g(CAR); 48g(CART)	
Construction	Sealed Type, Dust Cover Type, Flux Free Type	

Notes: 1) The data shown above are initial values.  
2) Please find coil temperature curve in the characteristic curved below.

## COIL DATA

at 23°C

Nominal Voltage VDC	Pick-up Voltage (Max.) VDC	Drop-out Voltage (Min.) VDC	Max. Allowable Voltage VDC	Coil Resistance Ω±10%
6	4.2	0.6	7.8	20
12	8.4	1.2	15.6	80
24	16.8	2.4	31.2	320
48	33.6	4.8	62.4	1280

## COIL

Coil Power	1800mW
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## SAFETY APPROVAL RATINGS

UL&CUL	NO:80A/14VDC NC:60A/14VDC
TüV	80A/14VDC

This datasheet is for customers' reference. All the specifications are subject to change without notice.



# RELAYS

Lake-View Electronics Corp. 1054 Pioneer Rd. Grafton, WI Ph: 262-377-8250 Fax: 262-375-0109

www.lvelectronics.com

Email: sales@lvelectronics.com

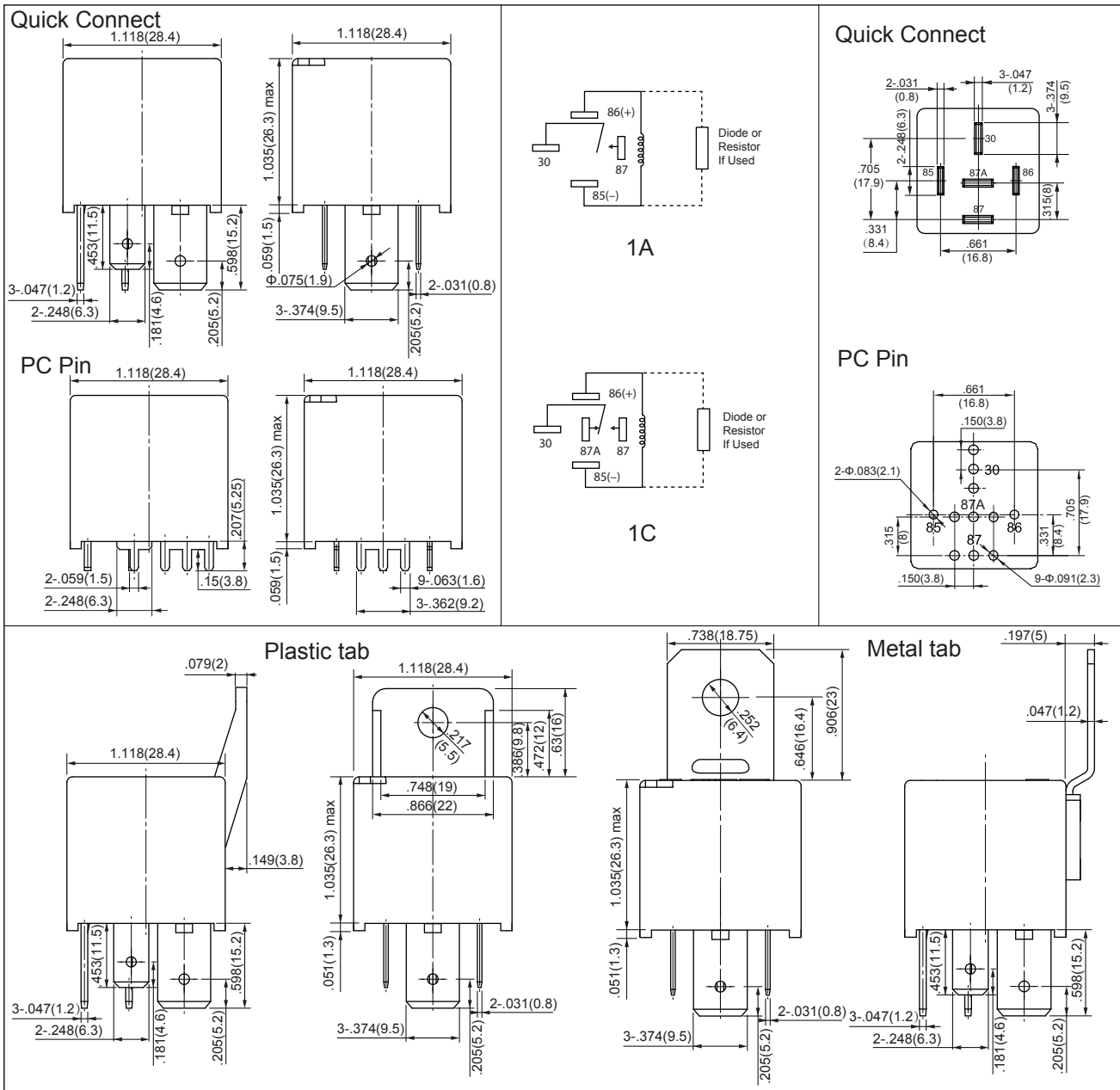
## OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT.

Unit: inch(mm)

Outline Dimensions

Wiring Diagram  
(Bottom view)

PCB Layout  
(Bottom view)



Remark: 1) In case of no tolerance shown in outline dimension: outline dimension  $\leq 1\text{mm}$ , tolerance should be  $\pm 0.2\text{mm}$ ; outline dimension  $> 1\text{mm}$  and  $\leq 5\text{mm}$ , tolerance should be  $\pm 0.3\text{mm}$ ; outline dimension  $> 5\text{mm}$ , tolerance should be  $\pm 0.4\text{mm}$ .  
 2) The tolerance without indicating for PCB layout is always  $\pm 0.1\text{mm}$ .

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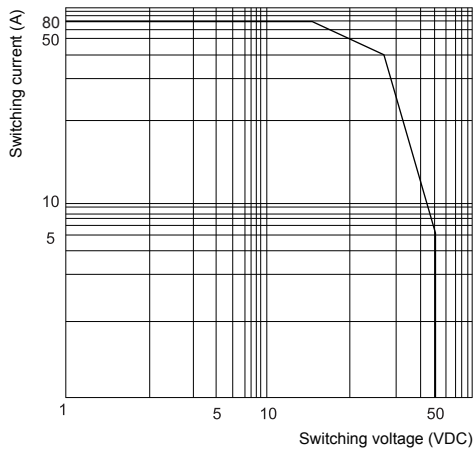
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[www.lvelectronics.com](http://www.lvelectronics.com)

Email: [sales@lvelectronics.com](mailto:sales@lvelectronics.com)

## CHARACTERISTIC CURVES

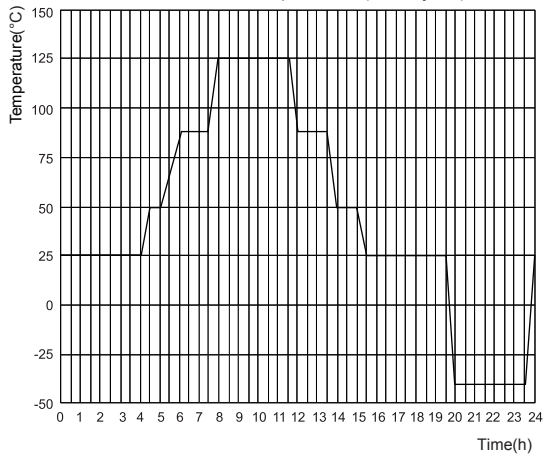
### 1. Load limit curve



- (1) The contact load is resistive.
- (2) The load and electrical endurance tests are made according to "CONTACT DATA" parameters' table. If actual load voltage, current, or operate frequency is different from "CONTACT DATA" table, please arrange corresponding tests for confirmation.
- (3) This chart takes 80A load as example.

### 2. Ambient temperature curve of the electrical endurance test

Ambient temp. curve (one cycle)



- (1) The minimum temperature is -40°C.
- (2) The maximum temperature is 125°C.

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