

# Automotive Relays

## FUJITSU FTR-P2 SERIES: SILENT TWIN AUTOMOTIVE RELAYS

- Features:**
- 1 POLE x 2, H-Bridge, 25A
  - Low operating sound
  - Compact, high density package
  - High capacity
  - Ease of PCB layout
  - High breaking capability
- Applications:**
- Power windows
  - Doorlocks
  - Power seat
  - Wiper (for H-bridge circuit)

For quantities greater than listed, call for quote.

MOUSER STOCK NO.	Fujitsu Part No.	Fig.	Nominal Voltage (VDC)	Nominal Power	Coil Resistance ( $\pm 10\%$ at 20°C)	Price Each			
						1	100	500	1000
817-FTR-P2CN010W1	FTR-P2CN010W1	A	10	455mW	220 $\Omega$	6.25	5.32	4.55	4.17

## FUJITSU FTR-P3 SERIES: AUTOMOTIVE RELAYS

- Features:**
- 1 POLE - 25A
  - Compact, high density package
  - High contact capacity
- Applications:**
- Power windows/seat
  - Doorlocks
  - Sun roof
  - Wiper/IWV

For quantities greater than listed, call for quote.

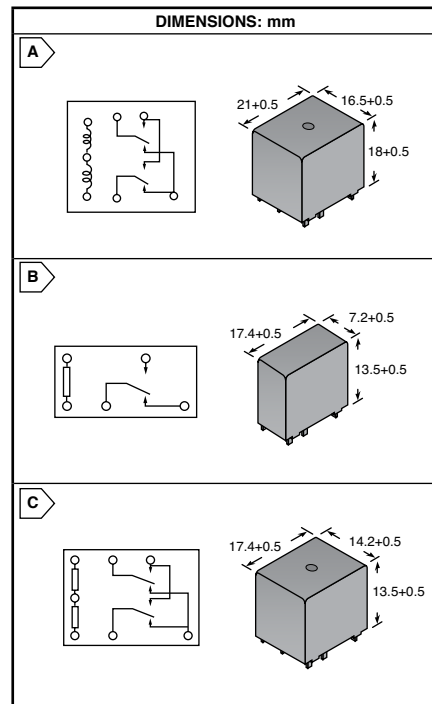
MOUSER STOCK NO.	Fujitsu Part No.	Fig.	Nominal Voltage (VDC)	Nominal Power	Coil Resistance ( $\Omega$ )	1	100	1.18	1.08
817-FTR-P3CN010W1	FTR-P3CN010W1	B	10	0.6W	167 $\Omega$	1.63	1.38	1.18	1.08

## FUJITSU FTR-P4 SERIES: COMPACT TWIN AUTOMOTIVE RELAYS

- Features:**
- 1 POLE x 2, H-Bridge - 25A
  - High density package
  - High contact capacity
  - Coil power savings
- Applications:**
- Power windows/seat
  - Doorlocks
  - Sun roof
  - Tilt steering
  - Retractable antenna

For quantities greater than listed, call for quote.

MOUSER STOCK NO.	Fujitsu Part No.	Fig.	Nominal Voltage (VDC)	Nominal Power	Coil Resistance ( $\Omega$ )	1	2.51	2.15	1.97
817-FTR-P4CN009W1	FTR-P4CN009W1	C	9	0.6W	135 $\Omega$	2.95	2.51	2.15	1.97
817-FTR-P4CN010W1	FTR-P4CN010W1	C	10	0.6W	167 $\Omega$	2.95	2.51	2.15	1.97



## NEC EP2/EP1 SERIES: 25A AUTOMOTIVE RELAYS

- The EP2 H bridge type is a twin relay for forward and reverse control of motors (SPDT x 2 contact form)
- The EP2 separate type contains 2 separated relays in 1 package (SPDT x 2 contact form)
- The EP1 series is a single SPDT relay
- Nom. Operating Power: 640mW



For quantities greater than listed, call for quote.

MOUSER STOCK NO.	NEC Part No.	Fig.	Pin Config.	Nominal Voltage (VDC)	Coil Resistance ( $\Omega$ ) $\pm 10\%$	Nominal Power (W)	Price Each			
							1	25	50	100
<b>H Bridge Type</b>										
551-EP2-3N1S	EP2-3N1S	A	1	12	225	0.64	3.93	3.63	3.33	3.02
<b>Separate Type</b>										
551-EP2-3N1ST	EP2-3N1ST	A	2	12	225	0.64	3.93	3.63	3.33	3.02
<b>Single</b>										
551-EP1-3N1S	EP1-3N1S	B	3	12	225	0.64	2.11	1.94	1.78	1.62

## NEC ET2/ET1 SERIES: 25A AUTOMOTIVE RELAYS

- The ET2 is a twin type relay with SPDT x 2 contact form
- The ET1 is a single SPDT relay
- Flux tight housing
- Nom. operating power: 640mW



For quantities greater than listed, call for quote.

MOUSER STOCK NO.	NEC Part No.	Fig.	Pin Config.	Nominal Voltage (VDC)	Coil Resistance ( $\Omega$ )	Nominal Power (W)	1	2.35	2.18	2.00	1.81
551-ET2-B3M1S	ET2-B3M1S	C	1	12	225	640	5.34	4.92	4.51	4.10	
551-ET1-B3M1S	ET1-B3M1S	D	4	12	225	640	2.81	2.59	2.38	2.16	

## NEC EQ1 SERIES: 35A AUTOMOTIVE RELAYS

- Nom. operating power: 640mW for motor control; 800mW for lamp control
- Contact form: SPDT for motor control; SPST for lamp control
- Flux tight housing



For quantities greater than listed, call for quote.

For General Purpose Motor Control											
MOUSER STOCK NO.	NEC Part No.	Fig.	Pin Config.	Nominal Voltage (VDC)	Coil Resistance ( $\Omega$ )	Nominal Power (W)	1	2.35	2.18	2.00	1.81
551-EQ1-31000S	EQ1-31000S	E	4	12	225	640mW	2.35	2.18	2.00	1.81	
For Lamp and LCR Circuit Control											
551-EQ1-22111S	EQ1-22111S	E	5	12	180	800mW	2.28	2.11	1.93	1.75	
551-EQ1-11111S	EQ1-11111S	E	5	12	144	1000mW	5.73	5.29	4.86	4.40	

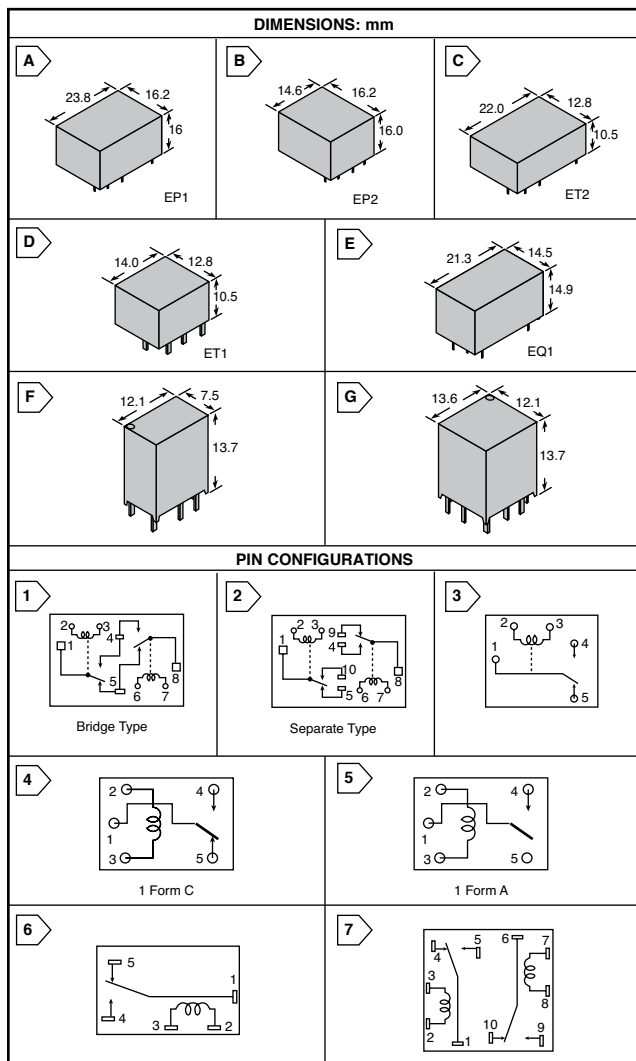
## NEC EX1/EX2 SERIES: 25A PC BOARD MOUNT AUTOMOTIVE RELAYS

- Features:**
- Approx. 75% relay volume of ET2; 65% of ET1
  - Approx. 88% relay weight of ET2; 78% of ET1
  - Approx. 60% relay space of ET2; 50% of ET1
- Applications:**
- Motor control
  - Heater control
  - Solenoid control



For quantities greater than listed, call for quote.

MOUSER STOCK NO.	NEC Part No.	Fig.	Pin Config.	Nominal Voltage (VDC)	Coil Resistance ( $\Omega$ ) $\pm 10\%$	Nominal Power (W)	Price Each			
							1	25	50	100
551-EX1-2U1S	EX1-2U1S	F	6	12	160	900mW	5.10	4.73	4.33	3.91
551-EX2-2U1S	EX2-2U1S	G	7	12	160	900mW	6.15	5.61	5.13	4.64



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