



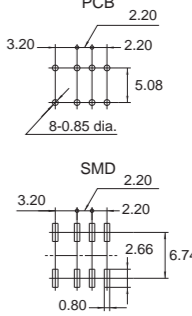
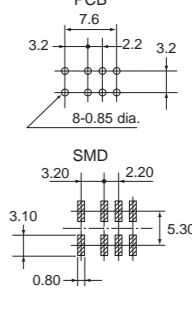
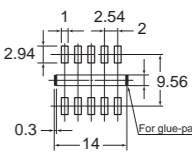
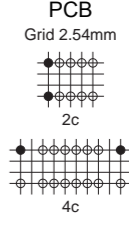










About the Selector Chart

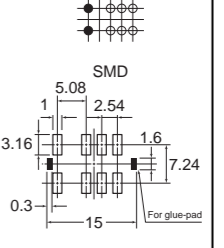
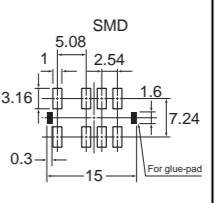
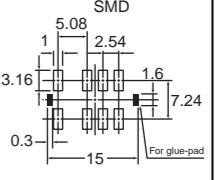
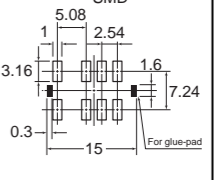
This selector chart is designed to help you quickly select a relay best suited for your needs. Please note: the values given for switching current and switching voltage do not necessarily indicate standard operating conditions.



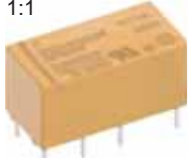



For the nominal switching capacity and other critical values, please refer to the respective data sheet or contact your Panasonic representative.


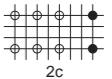

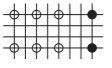

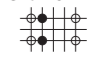
Type ★ = Popular type (Picture scale: DIN A4)	Features	Switching current	Max. switching voltage	Contact arrangement	Coil voltage
★ GQ (SMD)  10.6 x 7.2 x 5.2/5.4mm	<ul style="list-style-type: none"> Compact flat body saves space Outstanding surge resistance The use of twin crossbar contacts ensures high contact reliability High sensitivity 100mW type available RTIII (IP67) 	Max.: 2A Min.: 10μA 	<ul style="list-style-type: none"> 110V DC 125V AC 	2c	(DC) 1.5, 3, 4.5, 6, 9, 12, 24V
★ GN (SMD)  10.6 x 5.7 x 9.0mm	<ul style="list-style-type: none"> Compact slim body saves space Outstanding surge resistance The use of twin crossbar contacts ensures high contact reliability High sensitivity 100mW type available RTIII (IP67) 	Max.: 2A Min.: 10μA 	<ul style="list-style-type: none"> 110V DC 125V AC 	2c	(DC) 1.5, 3, 4.5, 6, 9, 12, 24V
★ TQ (SMD)  14 x 9 x 5.6mm	<ul style="list-style-type: none"> Ultra low profile 5.8mm Surge withstand 2,500V 3 types of surface-mount terminals available RTIII (IP67) 	Max.: 2A Min.: 10μA 	<ul style="list-style-type: none"> 220V DC 125V AC 	2c	(DC) 1.5, 3, 4.5, 5, 6, 9, 12, 24, 48V
TQ (THT)  14 x 9 x 5mm	<ul style="list-style-type: none"> 1,500V FCC RTIII (IP67) 	Max.: 1A Min.: 10μA 	<ul style="list-style-type: none"> 110V DC 125V AC 	2c	(DC) 3, 4.5, 5, 6, 9, 12, 24, 48V

Coil power	Breakdown voltage			Surge withstand voltage	Mounting method (bottom view)	Approvals Data sheet
	Between open contacts	Between contact sets	Contacts to coil			
Single side stable: 140mW (1.5 - 12V DC) 230mW (24V DC) 1 coil latching: 100mW (1.5V - 12V DC) 120mW (24V DC)	750Vrms	1000Vrms	1500Vrms	1,500V FCC 2,500V Telcordia	PCB, SMT 	BSI, CSA, UL
Single side stable: 140mW (1.5 - 12V DC) 230mW (24V DC) 1 coil latching: 100mW (1.5V - 12V DC) 120mW (24V DC)	750Vrms	1000Vrms	1500Vrms	1,500V FCC 2,500V	PCB, SMT 	BSI, CSA, UL
Single side stable: 140mW (up to 12V DC) 200mW (24V DC) 300mW (48V DC) 1 coil latching: 70mW (up to 12V DC) 100mW (24V DC) 2 coil latching: 140mW (up to 12V DC) 200mW (24V DC)	1000Vrms	1500Vrms	1500Vrms	1,500V FCC 2,500V Telcordia	SMT 	CSA, UL
Single side stable: 140mW (3 - 12V DC) 200mW (24V DC) 300mW (48V DC) 1 coil latching: 100mW (3 - 12V DC) 150mW (24V DC) 2 coil latching: 200mW (3 - 12V DC) 300mW (24V DC)	750Vrms	1000Vrms	1000Vrms	1,500V FCC	PCB Grid 2.54mm 	CSA, UL

Type ★ = Popular type (Picture scale: DIN A4)	Features	Switching current	Max. switching voltage	Contact arrangement	Coil voltage
<p>★ TX (SMD)</p> <p>1:1</p>  <p>15 x 7.4 x 8.2mm</p>	<ul style="list-style-type: none"> Surge withstand 2,500V Breakdown voltage between contacts and coil 2,000V 3 types of surface-mount terminals available Added new pin layout (LT type) in 2 coil latching type RTIII (IP67) 	<p>Max.: 2A Min.: 10µA</p> 	<ul style="list-style-type: none"> 220V DC 220V AC 	2c	(DC) 1.5, 3, 4.5, 5, 6, 9, 12, 24, 48V
<p>★ TX-TH (SMD)</p> <p>1:1</p>  <p>15 x 7.4 x 8.2mm</p>	<ul style="list-style-type: none"> Controlled 7.5A inrush current 2 types of pin layouts 3 types of surface mount terminals available RTIII (IP67) 	<p>Max.: 7.5A Min.: 10µA</p> 	<ul style="list-style-type: none"> 220V DC 250V AC 	2c	(DC) 1.5, 3, 4.5, 5, 6, 9, 12, 24, 48V
<p>TX-D (SMD)</p> <p>1:1</p>  <p>15 x 7.4 x 8.2/8.4mm</p>	<ul style="list-style-type: none"> High-insulation relay that conforms to the insulation level provided for in the EN41003 3 types of surface-mount terminals available High-insulation relay that conforms to the insulation level provided for in the EN60950 Surge breakdown voltage 6kV (contacts to coil) available RTIII (IP67) 	<p>Max.: 2A Min.: 10µA</p> 	<p>Break Before Make:</p> <ul style="list-style-type: none"> 220V DC 250V AC <p>Make Before Break:</p> <ul style="list-style-type: none"> 125V DC 125V AC 	2c	(DC) 1.5, 3, 4.5, 5, 6, 9, 12, 24V
<p>TX-S (SMD)</p> <p>1:1</p>  <p>15 x 7.4 x 8.2/8.4mm</p>	<ul style="list-style-type: none"> Higher sensitivity Nominal operating power, 50mW 1,500V FCC 3 types of surface-mount terminals available Added new pin layout (LT type) in 2 coil latching type RTIII (IP67) 	<p>Max.: 1A Min.: 10µA</p> 	<ul style="list-style-type: none"> 110V DC 125V AC 	2c	(DC) 1.5, 3, 4.5, 5, 6, 9, 12, 24V

Coil power	Breakdown voltage			Surge withstand voltage	Mounting method (bottom view)	Approvals Data sheet
	Between open contacts	Between contact sets	Contacts to coil			
<p>Single side stable: 140mW (up to 24V DC) 270mW (48V DC)</p> <p>1 coil latching: 100mW</p> <p>2 coil latching: 200mW</p>	1000Vrms	1000Vrms	2000Vrms	1,500V FCC 2,500V Telcordia	<p>PCB, SMT PCB, grid 2.54mm</p> 	BSI, CSA, UL
<p>Single side stable: 140mW (up to 24V DC) 270mW (48V DC)</p> <p>1 coil latching: 100mW (up to 24V DC)</p> <p>2 coil latching: 140mW (up to 24V DC)</p>	1000Vrms	1000Vrms	2000Vrms	1,500V FCC 2,500V Telcordia	<p>PCB, SMT PCB, grid 2.54mm</p> 	BSI, CSA, UL
<p>Single side stable: 200mW (1.5 - 12V DC) 230mW (24V DC)</p> <p>1 coil latching: 150mW (1.5 - 12V DC) 170mW (24V DC)</p>	1000Vrms	1000Vrms	3000Vrms	6,000V for fax machines & lighting ballasts	<p>PCB, SMT PCB, grid 2.54mm</p> 	BSI, CSA, UL
<p>Single side stable: 50mW (1.5 - 12V DC) 70mW (24V DC)</p> <p>1 coil latching: 35mW (1.5 - 12V DC) 50mW (24V DC)</p> <p>2 coil latching: 70mW (1.5 - 12V DC) 150mW (24V DC)</p>	750Vrms	1000Vrms	1800Vrms	1,500V FCC 2,500V Telcordia	<p>PCB, SMT PCB, grid 2.54mm</p> 	BSI, CSA, UL

Type ★ = Popular type (Picture scale: DIN A4)	Features	Switching current	Max. switching voltage	Contact arrangement	Coil voltage
DS 1:1  15/20 x 9.9 x 9.9mm	<ul style="list-style-type: none"> • 1,500V FCC • High switching power • RTIII (IP67) 	Max.: 2A Min.: 10µA 	<ul style="list-style-type: none"> • 220V DC • 250V AC 	1c, 2c	(DC) 1.5, 3, 5, 6, 9, 12, 24, 48V
★ DS2Y 1:1  20 x 9.9 x 9.3mm	<ul style="list-style-type: none"> • High sensitivity • 2 Form C contact • 1,500V FCC • Sealed construction • RTIII (IP67) 	Max.: 2A Min.: 10µA 	<ul style="list-style-type: none"> • 220V DC • 250V AC 	2c	(DC) 1.5, 3, 5, 6, 9, 12, 24, 48V
HY 1:1  12 x 7.4 x 10.1mm	<ul style="list-style-type: none"> • High sensitivity • 150mW / 200mW • RTIII (IP67) 	Max.: 1A Min.: 10µA 	<ul style="list-style-type: none"> • 60V DC 	1c	(DC) 1.5, 3, 4.5, 5, 6, 9, 12, 24V

Coil power	Breakdown voltage			Surge withstand voltage	Mounting method (bottom view)	Approvals Data sheet
	Between open contacts	Between contact sets	Contacts to coil			
S type: Single side stable: 200mW 1 coil latching: 90mW 2 coil latching: 180mW	1000Vrms (DS1-S: 500Vrms)	1000Vrms	1500Vrms (DS1-S: 1000Vrms)	1,500V FCC	PCB Grid 2.54mm  1c  2c	CSA, UL 
Single side stable: 200mW (up to 24V DC) 300mW (48V DC)	750Vrms	1000Vrms	1000Vrms	1,500V FCC	PCB Grid 2.54mm 	CSA, UL 
Standard: 200mW High sensitivity: 150mW	500Vrms	—	1000Vrms	—	PCB Grid 2.54mm 	CSA, UL 