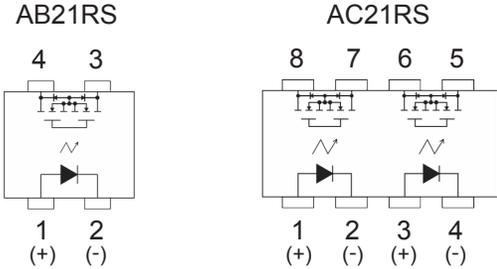
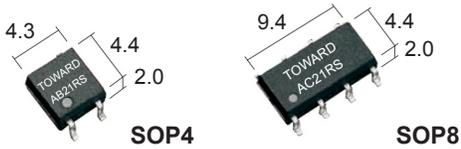


**Part Number: 21RS Series**  
**General Purpose - 1 Form A / 2 Form A - PhotoDMOS Relays**  
**Product Data Sheet**

**Low Capacitance / Resistance**

**PICTURE** **SCHEMATIC**



1: Anode (LED)                      1, 3: Anode (LED)  
 2: Cathode (LED)                    2, 4: Cathode (LED)  
 3, 4: Drain (MOS FET)                5, 6, 7, 8: Drain (MOS FET)

Drawings not to scale. All dimensions in mm nominal. Pitch: 2.54 mm

**✓RoHS Compliant**

**ORDERING INFORMATION** **FEATURES**

Body Style	Series	Options
AB = 4 pin AC = 8 pin	21RS	R1 = Tape & Reel

- **TOWARD** PhotoDMOS Relays
- 40 Volt, 250 mA
- On-Resistance: 0.9 Ω (typical)
- I/O Breakdown Voltage: 1500 Vrms Min.
- Output Capacitance: 13 pF
- Max LED Current 3.0 mA
- Low Off-State Leakage Current 10 μ A Max
- UL File E344988

**Part Number Example:** XX21RS-XX  
 AC21RS-R1 = Series 21RS, 2 Form A, 8 Pin, with tape and reel packaging

ABSOLUTE MAXIMUM RATINGS (Ambient Temperature: 25°C)			
	ITEM	SYMBOL	VALUE
Input	Continuous LED Current	I <sub>F</sub>	50 mA
	Peak LED Current (f=100 Hz, duty=1%)	I <sub>FP</sub>	500 mA
	LED Reverse Voltage	V <sub>R</sub>	5 V
	Input Power Dissipation	P <sub>In</sub>	75 mW
Output	Load Voltage	V <sub>L</sub>	40 V (AC peak or DC)
	Load Current (mA)	I <sub>L</sub>	250
	Peak Load Current (1 ms, 1 shot) (mA)	I <sub>Peak</sub>	750
	Output Power Dissipation (mW)	P <sub>Out</sub>	350 (1ch)      400 (2ch)
Total Power Dissipation (mW)		P <sub>T</sub>	350 (1ch)      450 (2ch)
I/O Breakdown Voltage (Vrms)		V <sub>I/O</sub>	1500
Operating Temperature		T <sub>Opr</sub>	-40° +85°C
Storage Temperature		T <sub>Stg</sub>	-40° +100°C

As part of the company policy of continued product improvement, specifications may change without notice. Our sales office will be pleased to help you with the latest information on this product range and the details of our full design and manufacturing service. All products are supplied to our standard conditions of sale unless otherwise agreed in writing.

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**ELECTRICAL SPECIFICATIONS (Ambient Temperature: 25° C)**

	ITEM	SYMBOL	MIN	TYP	MAX	UNITS	CONDITIONS
Input	LED Forward Voltage	V <sub>F</sub>	1.0	1.17	1.5	V	I <sub>F</sub> = 10mA
	Operation LED Current	I <sub>F On</sub>		0.3	3.0	mA	
	Recovery LED Voltage	V <sub>F Off</sub>	0.5	1.0		V	
Output	On-Resistance Drain to Drain	R <sub>On</sub>		0.9	1.25	Ω	I <sub>F</sub> = 5mA I <sub>L</sub> = Rating Time to flow is within 1 sec.
	Off-State Leakage Current	I <sub>Leak</sub>		0.03	10	μA	V <sub>L</sub> = 40V
	Output Capacitance	C <sub>Out</sub>		13		pF	V <sub>L</sub> = 0V, f = 1MHz
Transmission	Turn-On Time	T <sub>On</sub>		0.07	0.5	ms	I <sub>F</sub> = 5mA
	Turn-Off Time	T <sub>Off</sub>		0.05	0.2	ms	I <sub>L</sub> = Rating
Coupled	I/O Insulation Resistance	R <sub>I/O</sub>	10 <sup>9</sup>			Ω	
	I/O Capacitance	C <sub>I/O</sub>		0.8		pF	f = 1MHz

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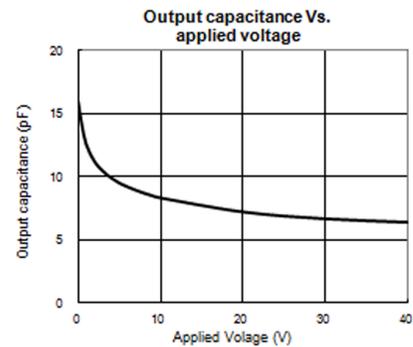
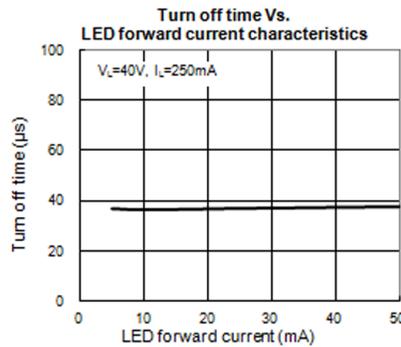
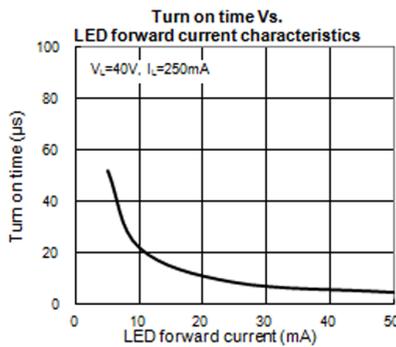
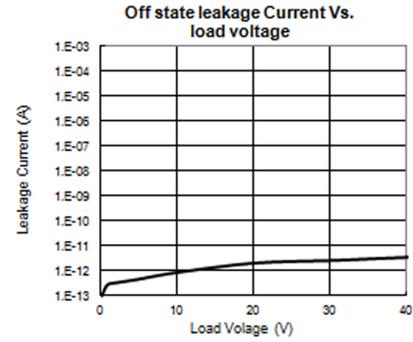
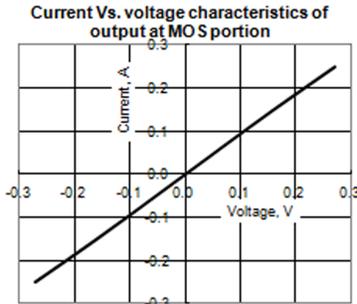
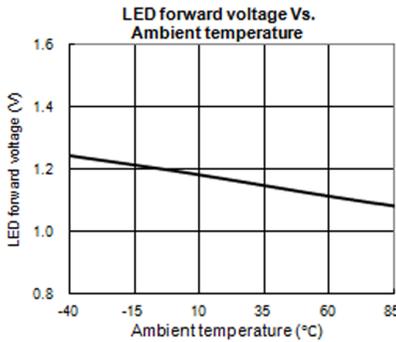
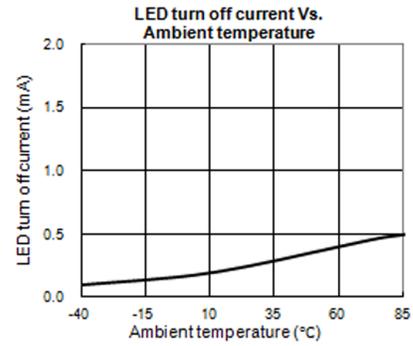
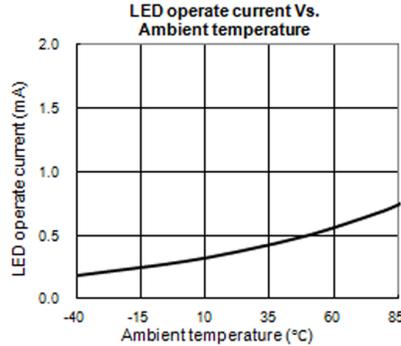
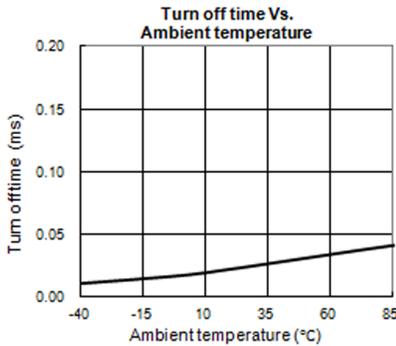
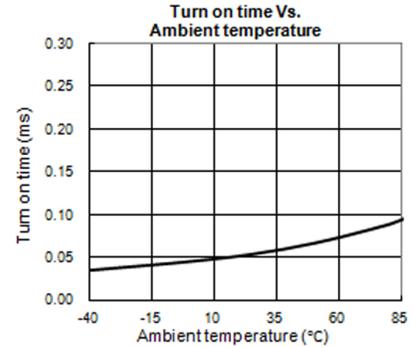
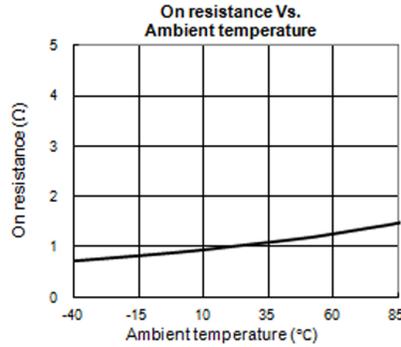
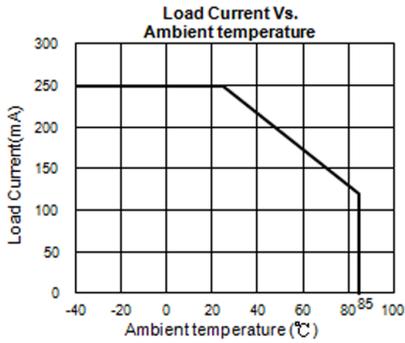
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**GRAPHS**



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