

# SSR Relay NO-1A

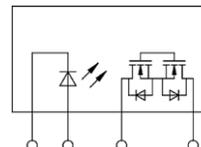
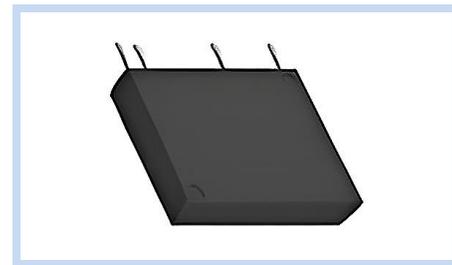
## AC/DC 100V 4.5A SIL

SSR1A2A4A5SL

MERITEK

### FEATURE

- Normally Open (1-Form-A) Solid State Relay
- AC/DC Output Load Compatible
- Isolation Voltage: 2500 Vrms
- Application: Telecommunications, Measuring and Testing Equipment, Industrial Control, Security Systems
- In Accordance with Safety Class UL 1577 Standard



### MAXIMUM RATINGS

Parameter		Symbol	Value	Unit
Input Continuous LED Current		$I_F$	50	mA
Input Peak LED Current	$f=100\text{Hz}$ , $\text{duty}=0.1\%$	$I_{FP}$	1	A
Input LED Reverse Voltage		$V_R$	5	V
Input Power Dissipation		$P_{In}$	75	mW
Output Load Voltage	AC peak	$V_L$	100	V
Output Load Current	AC peak or DC	$I_L$	4.5	A
Output Peak Load Current	100ms (1 pulse), $V_L=DC$	$I_{Peak}$	8.0	A
Output Power Dissipation		$P_{out}$	1.6	W
Total Power Dissipation		$P_T$	1.6	W
Isolation Voltage		$V_{ISO}$	2500	$V_{RMS}$
Operating Temperature Range	Non-icing at low temperature	$T_{Opr}$	-40~+85	°C
Storage Temperature Range		$T_{Stg}$	-40~+100	°C

### ELECTRICAL CHARACTERISTICS

Input Characteristics	Conditions	Symbol	Min	Typ.	Max	Unit
LED Forward Voltage	$I_F=10\text{mA}$	$V_F$	--	1.25	1.5	V
Operation LED Current	--	$I_{F(On)}$	--	1.0	3.0	mA
Recovery LED Current	--	$I_{F(Off)}$	--	0.4	0.9	mA
Output Characteristics	Conditions	Symbol	Min	Typ.	Max	Unit
On-Resistance	$I_F=10\text{mA}$ , $I_L=\text{Rating}$ , Time to flow is within 1 sec	$R_{(On)}$	--	0.035	0.06	$\Omega$
Off-State Leakage Current	$I_F=0\text{mA}$ , $V_L=\text{Rating}$	$I_{Leak}$	--	--	10	$\mu\text{A}$
Transmission Characteristics	Conditions	Symbol	Min	Typ.	Max	Unit
Turn-On Time	$I_F=10\text{mA}$ , $I_L=100\text{mA}$ , $V_L=10\text{V}$	$t_{on}$	--	0.8	3.0	ms
Turn-Off Time		$t_{off}$	--	0.1	1.0	ms
Max. Operating Frequency	$I_F=10\text{mA}$ , Duty Fator=50%, $I_L=\text{Rating}$ , $V_L=\text{Rating}$		--	--	0.5	cps
Coupled Characteristics	Conditions	Symbol	Min	Typ.	Max	Unit
I/O Isolation Resistance	$V_{IO}=500V_{DC}$	$R_{IO}$	$10^9$	--	--	$\Omega$
I/O Capacitance	$f=1\text{MHz}$ , $V_B=0\text{V}$	$C_{IO}$	--	0.8	1.5	pF

Note:  $T_A=25^\circ\text{C}$  unless otherwise noted.

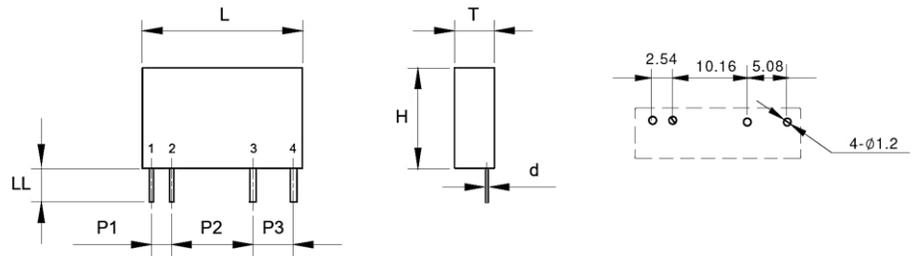
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**DIMENSIONS**

Item	Size (mm)
L Max	20.3
H Max	12.1
T Max	5.4
P1	2.54
P2	10.16
P3	5.08
d	0.8x0.3
LL	3.5



Note:

1.Input: DC-; 2.Input: DC+; 3.Output:DC or AC; 4.Output: DC or AC