PR31MA11NTZ

6-pin DIP Type SSR for Low Power Control

■ Features

1. Low output current type.
   (Recommended RMS ON-state current:MAX 60mA)
2. Compact 5-pin dual-in-line package.

■ Applications

1. Electrical dampers for refrigerator.
2. Turntable controllers for microwave oven.
3. Ignitions circuit for oil fan heater.

■ Absolute Maximum Ratings

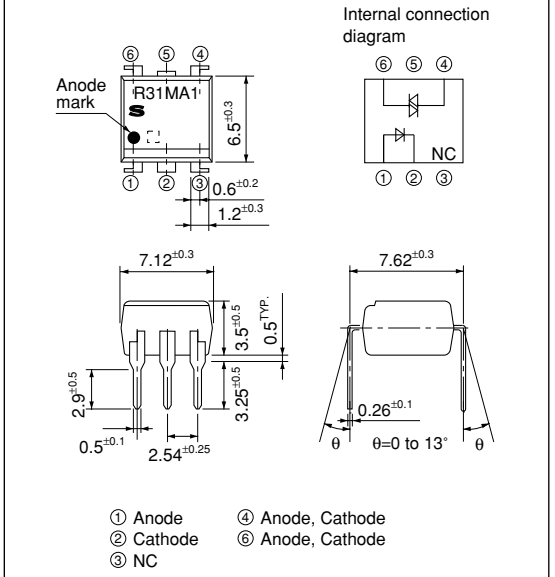
(T_a=25°C)

Parameter		Symbol	Rating	Unit
Input	Forward current	I_F	50	mA
	Reverse voltage	V_R	6	V
Output	RMS ON-state current	$I_{T\ (rms)}$	100	mA
	*1 Peak one cycle surge current	I_{surge}	1.2	A
	Repetitive peak OFF-state voltage	V_{DRM}	600	V
*2 Isolation voltage		$V_{iso\ (rms)}$	5 000	V
Operating temperature		T_{opr}	−30 to +80	°C
Storage temperature		T_{stg}	−55 to +125	°C
*3 Soldering temperature		T_{sol}	260	°C

*1 50Hz sine wave
*2 AC for 1 minute, 40 to 60% RH, f=60Hz
*3 For 10s

■ Outline Dimensions

(Unit : mm)



① Anode ④ Anode, Cathode
② Cathode ⑥ Anode, Cathode
③ NC

※ Pin ⑤ is not allowed external connection

■ Electro-optical Characteristics

(T_a=25°C)

Parameter		Symbol	Conditions	MIN.	TYP.	MAX.	Unit
Input	Forward voltage	V_F	I_F=20mA	–	1.2	1.4	V
	Reverse current	I_R	V_R=3V	–	–	10^{-5}	A
Output	Repetitive peak OFF-state current	I_{DRM}	V_{DRM}=Rated	–	–	10^{-6}	A
	ON-state voltage	V_T	I_T=0.06A	–	–	2.5	V
	Holding current	I_H	V_D=6V	0.1	1.0	3.5	mA
	Critical rate of rise of OFF-state voltage	dV/dt	$V_{DRM}=1/\sqrt{2}$ • Rated	500	–	–	V/µs
	Operating current (rms)	–	AC200V, 60Hz, Resistance load	–	–	60	mA
Transfer characteristics	Minimum trigger current	I_{FT}	V_D=6V, R_L=100Ω	–	–	10	mA
	Isolation resistance	R_{ISO}	DC=500V, 40 to 60%RH	5×10^{10}	10^{11}	–	Ω
	Turn-on time	t_{on}	V_D=6V, R_L=100Ω, I_F=20mA	–	–	100	µs

Fig.1 RMS ON-state Current vs. Ambient Temperature

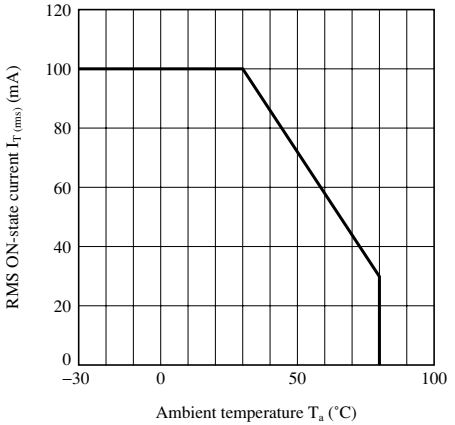


Fig.2 Forward Current vs. Ambient Temperature

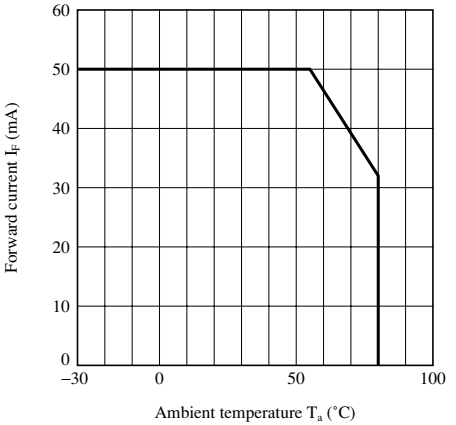
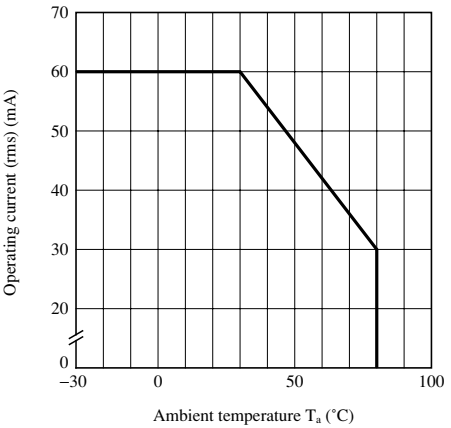


Fig.3 Operating Current vs. Ambient Temperature



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  --- Office automation equipment
  --- Telecommunication equipment [terminal]
  --- Test and measurement equipment
  --- Industrial control
  --- Audio visual equipment
  --- Consumer electronics

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  --- Alarm equipment
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