PR3BMF11NSZ

8-Pin DIP Type SSR for Low Power Control

■ Features

1. Compact 8-pin dual-in-line package type
2. RMS ON-state current $I_{T(rms)}$:1.2A (T_a≤25˚C)
3. High repetitive peak OFF-state voltage (V_{DRM}:MIN. 600V)
4. Isolation voltage between input and output ($V_{iso(rms)}$:4kV)
5. Recognized by UL (No. E94758)
6. Recognized by CSA (No. LR63705)

■ Applications

1. Various types of home appliances.

■ Absolute Maximum Ratings

(T_a=25°C)

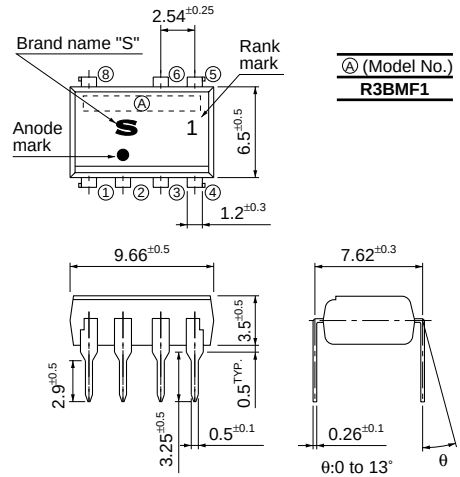
	Parameter	Symbol	Rating	Unit
Input	*1 Forward current	I_F	50	mA
	Reverse voltage	V_R	6	V
Output	*1 RMS ON-state current	$I_{T(rms)}$	1.2	A
	Peak one cycle surge current	I_{surge}	12 (50Hz sine wave)	A
	Repetitive peak OFF-state voltage	V_{DRM}	600	V
*2 Isolation voltage		$V_{iso(rms)}$	4.0	kV
Operating temperature		T_{opr}	−30 to 105	°C
Storage temperature		T_{stg}	−40 to 125	°C
Soldering temperature		T_{sol}	260 (For 10s)	°C

*1 The derating factors of absolute maximum ratings due to ambient temperature are shown in Fig.1, 2

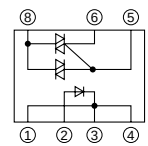
*2 40 to 60%RH, AC for 1 minute, f=60Hz

■ Outline Dimensions

(Unit : mm)



Internal connection Diagram



① Cathode
② Anode
③ Cathode
④ Cathode
⑤ G
⑥ T_1
⑧ T_2

Terminal ①, ③ and ④ are common ones of cathode.To radiate the heat, solder all of the lead pins on the pattern of PWB.

■ Electrical 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	μA
Output	Repetitive peak OFF-state current	I_{DRM}	V_D=V_{DRM}	–	–	100	μA
	ON-state voltage	V_T	I_T=1.2A	–	–	3.0	V
	Holding current	I_H	V_D=6V	–	–	25	mA
	Critical rate of rise of OFF-state voltage	dV/dt	V_D=1/$\sqrt{2}$ • V_{DRM}	100	–	–	V/μs
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

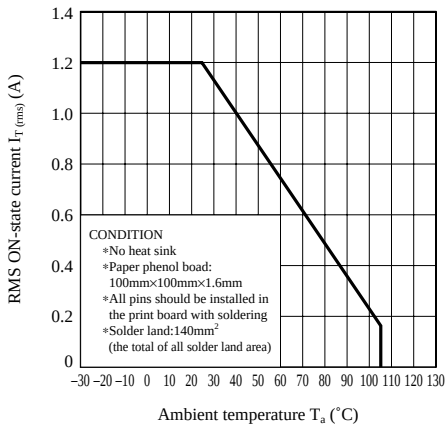


Fig.2 Forward Current vs. Ambient Temperature

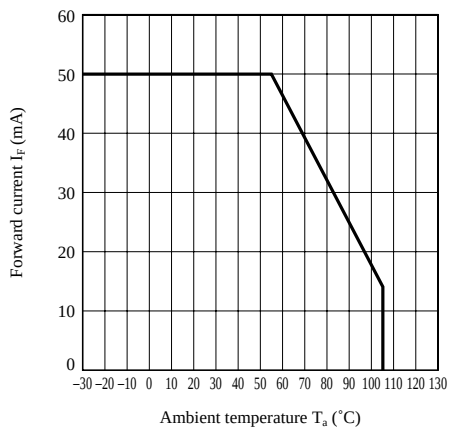


Fig.3 Forward Current vs. Forward Voltage

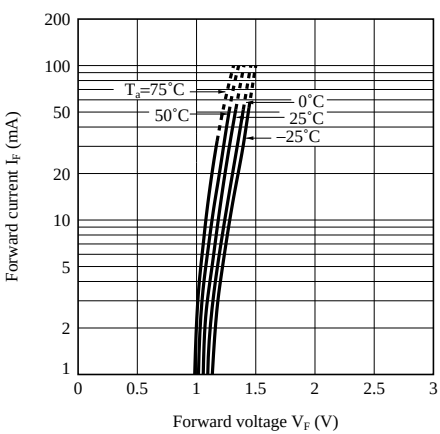


Fig.4 Minimum Trigger Current vs. Ambient Temperature

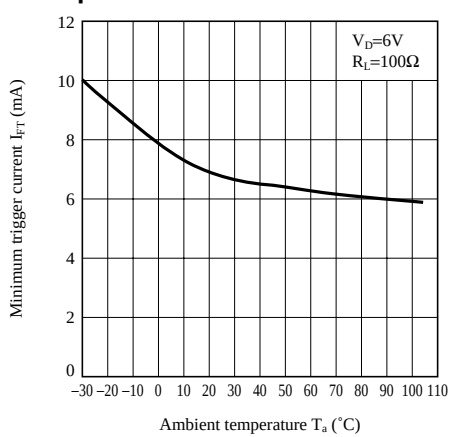


Fig.5 ON-state Voltage vs. Ambient Temperature

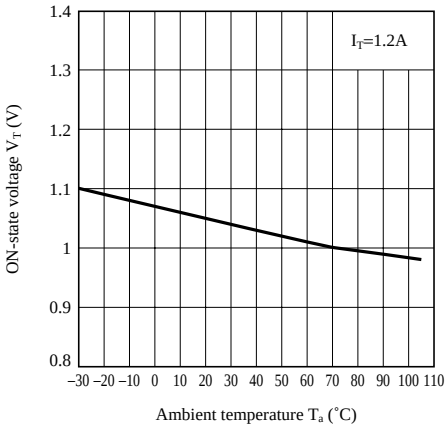


Fig.6 Relative Holding Current vs. Ambient Temprature

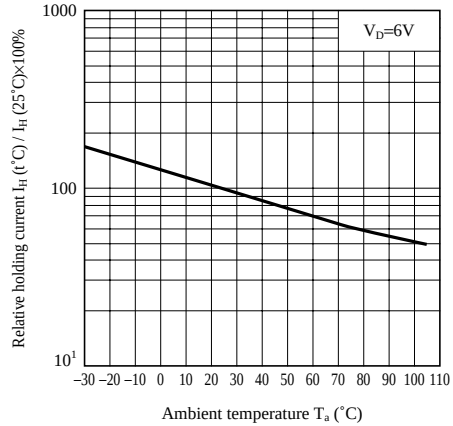


Fig.7 ON-state Current vs. ON-state Voltage

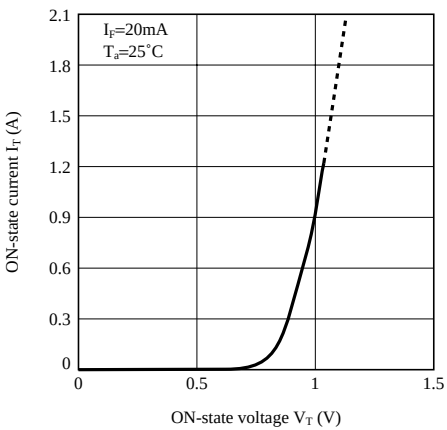
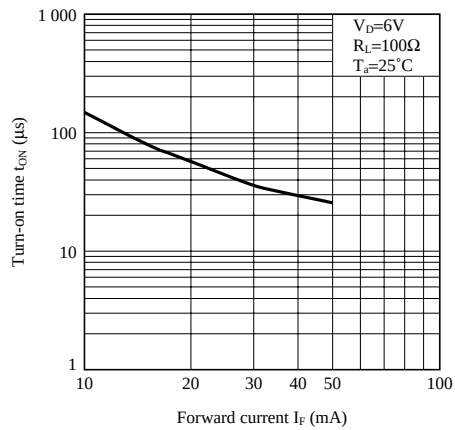


Fig.8 Turn-on Time vs. Forward Current



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  --- Test and measurement equipment
  --- Industrial control
  --- Audio visual equipment
  --- Consumer electronics

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  --- Gas leakage sensor breakers
  --- Alarm equipment
  --- Various safety devices, etc.

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