

PR23MF11NSZ/ PR33MF11NSZ

■ Features

1. Compact 8-pin dual-in-line package type
2. RMS ON-state current $I_{T(rms)}$:0.3A
3. High repetitive peak OFF-state voltage
PR23MF11NSZ V_{DRM} :MIN. 400V
PR33MF11NSZ 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 ($T_a=25^\circ\text{C}$)

	Parameter	Symbol	Rating	Unit	
Input	*1 Forward current	I_F	50	mA	
	Reverse voltage	V_R	6	V	
Output	*1 RMS ON-state current	$I_{T(rms)}$	0.3	A	
	Peak one cycle surge current	I_{surge}	3 (50Hz sine wave)	A	
	Repetitive peak OFF-state voltage	V_{DRM}	PR23MF11NSZ	400	V
			PR33MF11NSZ	600	
*2 Isolation voltage	$V_{iso(rms)}$	4.0	kV		
	Operating temperature	T_{opr}	-25 to +85	$^\circ\text{C}$	
	Storage temperature	T_{stg}	-40 to +125	$^\circ\text{C}$	
	Soldering temperature	T_{sol}	260 (For 10s)	$^\circ\text{C}$	

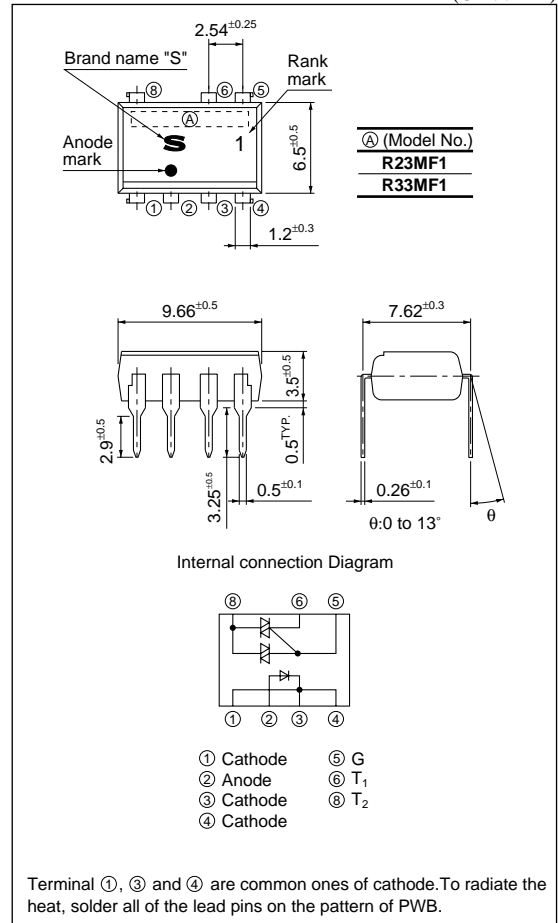
*1 The derating factors of absolute maximum ratings due to ambient temperature are shown in Fig.1, 2

*2 40 to 60%RH, AC for 1 minute, $f=60\text{Hz}$

8-Pin DIP Type SSR for Low Power Control

■ Outline Dimensions

(Unit : mm)



■ Model Line-up

	For 100V line	For 200V line
Model No.	PR23MF11NSZ	PR33MF11NSZ

■ Electrical Characteristics

($T_a=25^{\circ}\text{C}$)

Parameter		Symbol	Conditions	MIN.	TYP.	MAX.	Unit
Input	Forward voltage	V_F	$I_F=20\text{mA}$	—	1.2	1.4	V
	Reverse current	I_R	$V_R=3\text{V}$	—	—	10	μA
Output	Repetitive peak OFF-state current	I_{DRM}	$V_D=V_{\text{DRM}}$	—	—	100	μA
	ON-state voltage	V_T	$I_T=0.3\text{A}$	—	—	3.0	V
	Holding current	I_H	$V_D=6\text{V}$	—	—	25	mA
	Critical rate of rise of OFF-state voltage	dV/dt	$V_D=1/\sqrt{2} \cdot V_{\text{DRM}}$	100	—	—	$\text{V}/\mu\text{s}$
Transfer characteristics	Minimum trigger current	I_{FT}	$V_D=6\text{V}, R_L=100\Omega$	—	—	10	mA
	Isolation resistance	R_{ISO}	DC=500V, 40 to 60%RH	5×10^{10}	10^{11}	—	Ω
	Turn-on time	t_{on}	$V_D=6\text{V}, R_L=100\Omega, I_F=20\text{mA}$	—	—	100	μs

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

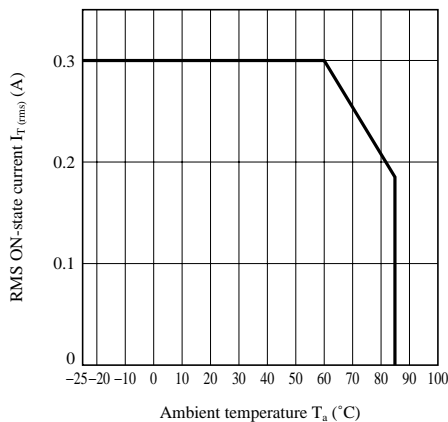


Fig.2 Forward Current vs. Ambient Temperature

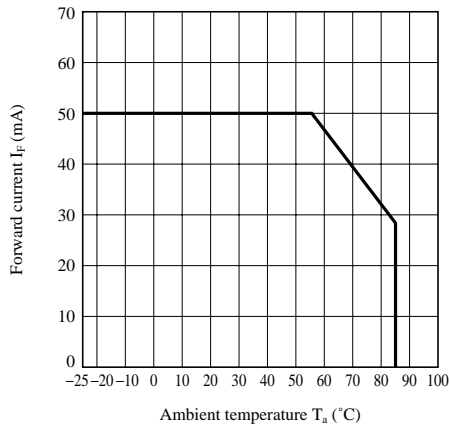


Fig.3 Forward Current vs. Forward Voltage

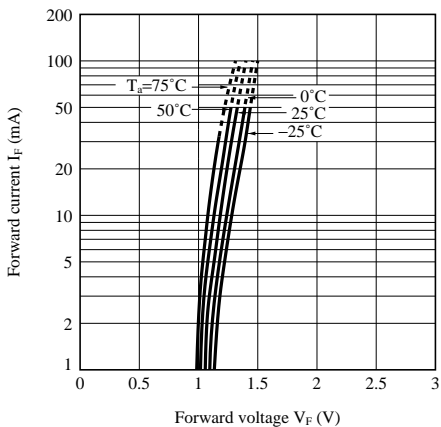


Fig.4 Minimum Trigger Current vs. Ambient Temperature

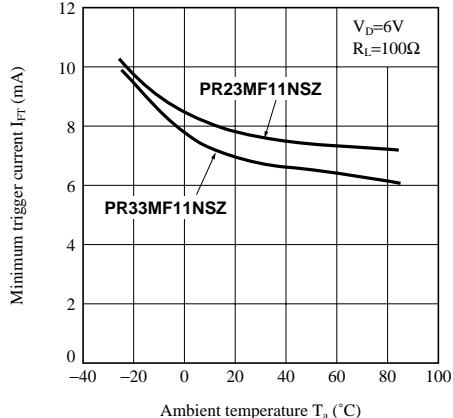


Fig.5 ON-state Voltage vs. Ambient Temperature

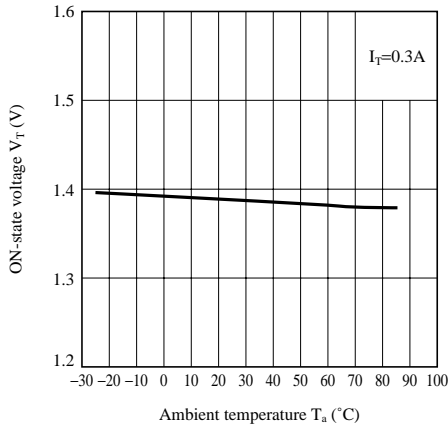


Fig.6 Relative Holding Current vs. Ambient Temperature

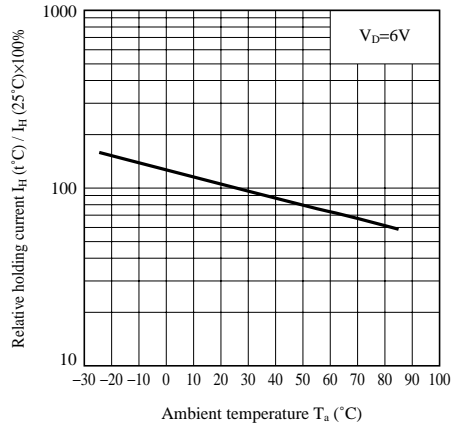


Fig.7 ON-state Current vs. ON-state Voltage

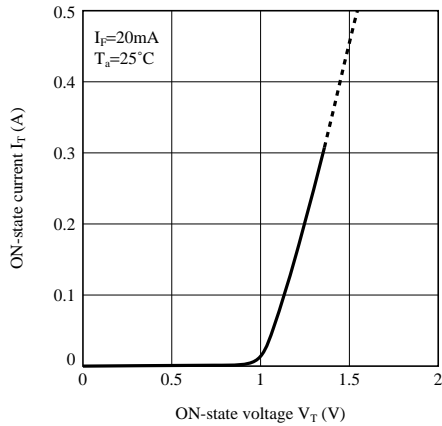


Fig.8 Turn-on Time vs. Forward Current (PR23MF11NSZ)

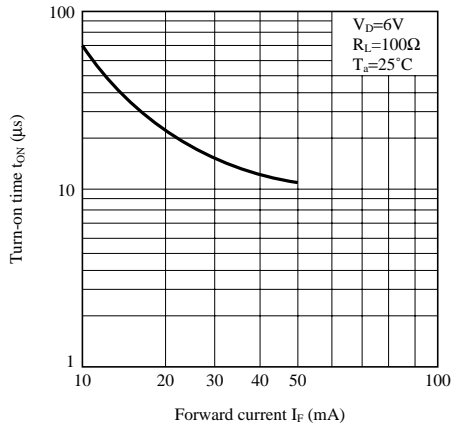
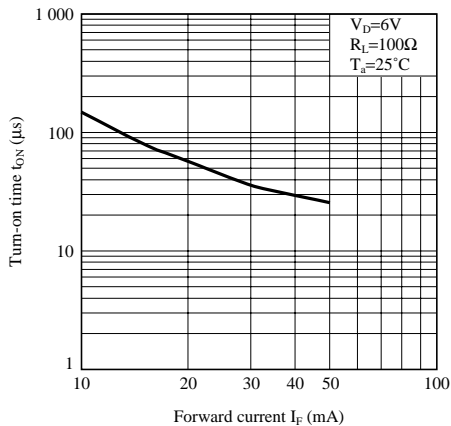


Fig.9 Turn-on Time vs. Forward Current (PR33MF11NSZ)



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