

# PR36MF22NSZ/ PR39MF22NSZ

## ■ Features

1. Compact 8-pin dual-in-line package type.
2. RMS ON-state current  $I_{T(rms)}$ : 0.6A, 0.9A
3. Built-in zero-cross circuit.
4. High repetitive peak OFF-state voltage.  
( $V_{DRM}$ : MIN. 600V)
5. Isolation voltage between input and output.  
( $V_{iso(rms)}$ : 4kV)
6. Under preparation for UL and CSA.

## ■ Applications

1. Various types of home appliances

## ■ Model Line-up

RMS ON-state current (rms)	Model No.
0.6A	<b>PR36MF22NSZ</b>
0.9A	<b>PR39MF22NSZ</b>

## ■ 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	$I_{T(rms)}$	PR36MF22NSZ	0.6
	PR39MF22NSZ		0.9	
	*2 Peak one cycle surge current	$I_{surge}$	PR36MF22NSZ	6
	PR39MF22NSZ		9	
Repetitive peak OFF-state voltage		$V_{DRM}$	600	V
*3 Isolation voltage		$V_{iso(rms)}$	4.0	kV
Operating temperature		$T_{opr}$	-30 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

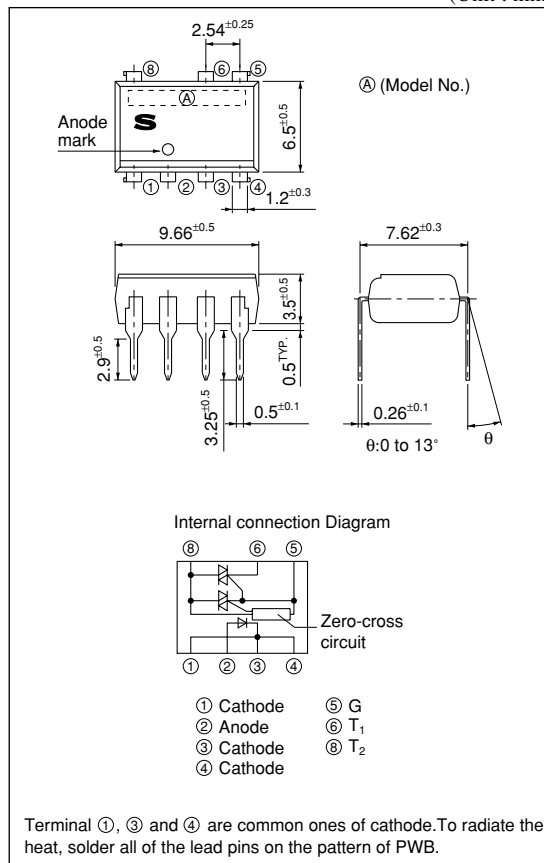
\*2 50Hz sine wave

\*3 AC for 1 min, 40 to 60%RH,  $f=60\text{Hz}$

## 8-Pin DIP Type SSR for Low Power Control

## ■ Outline Dimensions

(Unit : mm)



■ Electrical Characteristics

(T<sub>a</sub>=25°C)

Parameter		Symbol	Conditions	MIN.	TYP.	MAX.	Unit
Input	Forward voltage	V <sub>F</sub>	I <sub>F</sub> =20mA	–	1.2	1.4	V
	Reverse current	I <sub>R</sub>	V <sub>R</sub> =3V	–	–	10	μA
Output	Repetitive peak OFF-state current	I <sub>DRM</sub>	V <sub>D</sub> =V <sub>DRM</sub>	–	–	100	μA
	ON-state voltage	V <sub>T</sub>	PR36MF22NSZ I <sub>T</sub> =0.6A	–	–	3.0	V
			PR39MF22NSZ I <sub>T</sub> =0.9A	–	–		
	Holding current	I <sub>H</sub>	V <sub>D</sub> =6V	–	–	25	mA
	Critical rate of rise of OFF-state voltage	dV/dt	V <sub>D</sub> =1/√2 · V <sub>DRM</sub>	100	–	–	V/μs
	Zero-cross voltage	V <sub>OX</sub>	I <sub>F</sub> =10mA, R load	–	–	35	V
Transfer characteristics	Minimum trigger current	I <sub>FT</sub>	V <sub>D</sub> =6V, R <sub>L</sub> =100Ω	–	–	5	mA
	Isolation resistance	R <sub>ISO</sub>	DC=500V, 40 to 60%RH <sub>F</sub>	5×10 <sup>10</sup>	10 <sup>11</sup>	–	Ω
	Turn-on time	t <sub>on</sub>	V <sub>D</sub> =6V, R <sub>L</sub> =100Ω, I <sub>F</sub> =10mA	–	–	50	μs

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

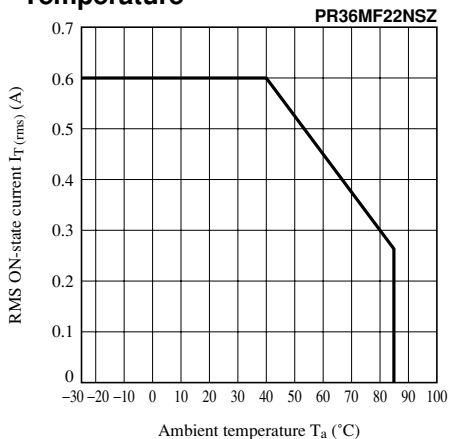


Fig.2 RMS ON-state Current vs. Ambient Temperature

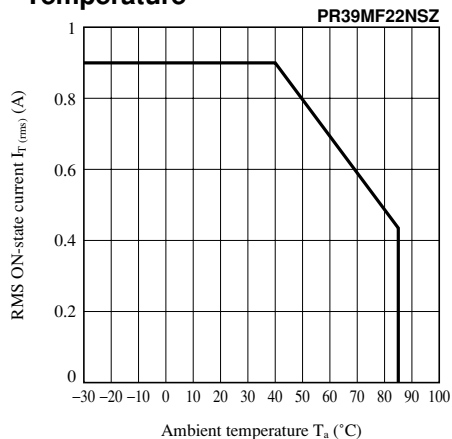
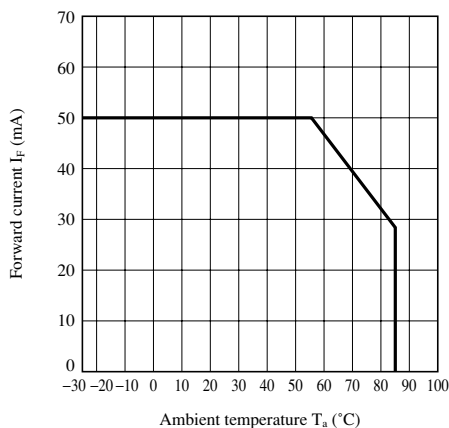


Fig.3 Forward Current vs. Ambient Temperature



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