

## DATA SHEET

NEC

MOS FIELD EFFECT TRANSISTOR  
2SJ598SWITCHING  
P-CHANNEL POWER MOS FET

## DESCRIPTION

The 2SJ598 is P-channel MOS Field Effect Transistor designed for solenoid, motor and lamp driver.

## FEATURES

- Low on-state resistance:  
 $R_{DS(on)1} = 130 \text{ m}\Omega \text{ MAX. (} V_{GS} = -10 \text{ V, } I_D = -6 \text{ A)}$   
 $R_{DS(on)2} = 190 \text{ m}\Omega \text{ MAX. (} V_{GS} = -4.0 \text{ V, } I_D = -6 \text{ A)}$
- Low  $C_{iss}$ :  $C_{iss} = 720 \text{ pF TYP.}$
- Built-in gate protection diode
- TO-251/TO-252 package

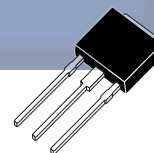
ABSOLUTE MAXIMUM RATINGS ( $T_A = 25^\circ\text{C}$ )

Drain to Source Voltage ( $V_{GS} = 0 \text{ V}$ )	$V_{DSS}$	-60	V
Gate to Source Voltage ( $V_{DS} = 0 \text{ V}$ )	$V_{GSS}$	$\pm 20$	V
Drain Current (DC) ( $T_C = 25^\circ\text{C}$ )	$I_{D(DC)}$	$\pm 12$	A
Drain Current (pulse) <sup>Note1</sup>	$I_{D(pulse)}$	$\pm 30$	A
Total Power Dissipation ( $T_C = 25^\circ\text{C}$ )	$P_T$	23	W
Total Power Dissipation ( $T_A = 25^\circ\text{C}$ )	$P_T$	1.0	W
Channel Temperature	$T_{ch}$	150	$^\circ\text{C}$
Storage Temperature	$T_{stg}$	-55 to +150	$^\circ\text{C}$
Single Avalanche Current <sup>Note2</sup>	$I_{AS}$	-12	A
Single Avalanche Energy <sup>Note2</sup>	$E_{AS}$	14.4	mJ

## ★ ORDERING INFORMATION

PART NUMBER	PACKAGE
2SJ598	TO-251 (MP-3)
2SJ598-Z	TO-252 (MP-3Z)

(TO-251)



(TO-252)



**Notes 1.**  $PW \leq 10 \mu\text{s}$ , Duty Cycle  $\leq 1\%$

**2.** Starting  $T_{ch} = 25^\circ\text{C}$ ,  $V_{DD} = -30 \text{ V}$ ,  $R_G = 25 \Omega$ ,  $V_{GS} = -20 \rightarrow 0 \text{ V}$

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