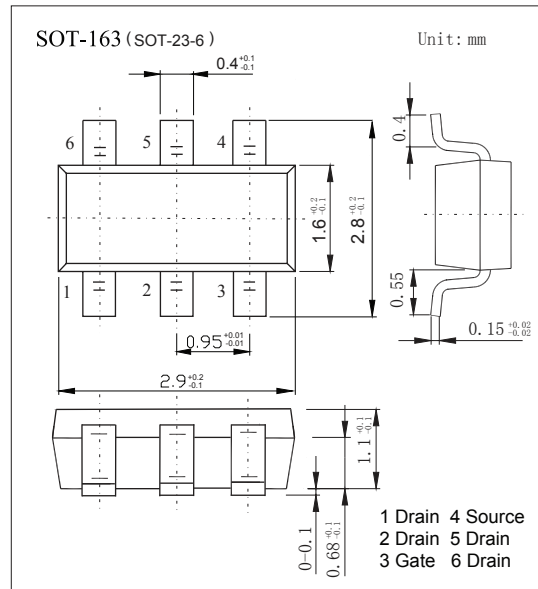
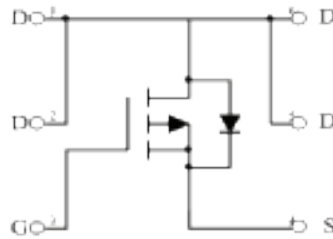


## P Channel MOSFET

### 2SJ3053DV

#### ■ Features

- Surface Mount Package
- Super High Density Cell Design for Extremely Low  $R_{DS(on)}$
- Exceptional On-resistance and Maximum DC Current Capability



#### ■ Absolute Maximum Ratings ( $T_a = 25^\circ\text{C}$ , unless otherwise noted)

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	$V_{DS}$	-150	V
Gate-Source Voltage	$V_{GS}$	$\pm 20$	
Continuous Drain Current (Note 1)	$I_D$	-1.4	A
Pulsed Drain Current ( $t_p=10\mu\text{s}$ )	$I_{DM}$	-5	
Power Dissipation	$P_D$	0.35	W
Thermal Resistance from Junction- to-Ambient (Note 1)	$R_{thJA}$	357	$^\circ\text{C}/\text{W}$
Junction Temperature	$T_J$	150	$^\circ\text{C}$
Junction Storage Temperature Range	$T_{stg}$	-55 to 150	
Lead Temperature for Soldering Purposes(1/8" from case for 10 s)	$T_L$	260	

Note 1.Surface mounted on FR4 board using the minimum recommended pad size.

## P Channel MOSFET

## 2SJ3053DV

■ Electrical Characteristics ( $T_a = 25^\circ\text{C}$ , unless otherwise noted)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	$V_{DSS}$	$I_D = -250\mu\text{A}$ , $V_{GS} = 0\text{V}$	-150			V
Zero Gate Voltage Drain Current	$I_{DSS}$	$V_{DS} = -120\text{V}$ , $V_{GS} = 0\text{V}$			-1	$\mu\text{A}$
Gate-Body Leakage Current	$I_{GSS}$	$V_{DS} = 0\text{V}$ , $V_{GS} = \pm 20\text{V}$			$\pm 100$	nA
Gate Threshold Voltage (Note 2)	$V_{GS(th)}$	$V_{DS} = V_{GS}$ , $I_D = -250\mu\text{A}$	-2		-3	V
Static Drain-Source On-Resistance (Note 2)	$R_{DS(on)}$	$V_{GS} = -10\text{V}$ , $I_D = -1.4\text{A}$			800	m $\Omega$
		$V_{GS} = -6\text{V}$ , $I_D = -1\text{A}$			850	
Forward Transconductance (Note 2)	$g_{FS}$	$V_{DS} = -10\text{V}$ , $I_D = -1.4\text{A}$		4.5		S
Diode Forward Voltage	$V_{SD}$	$I_S = -1\text{A}$ , $V_{GS} = 0\text{V}$			-1.2	V
Dynamic Characteristics (Note 4)						
Input Capacitance	$C_{iss}$	$V_{GS} = 0\text{V}$ , $V_{DS} = -50\text{V}$ , $f = 1\text{MHz}$		520		pF
Output Capacitance	$C_{oss}$			30		
Reverse Transfer Capacitance	$C_{rss}$			20		
Switching Characteristics (Note 3, 4)						
Total Gate Charge	$Q_g$	$V_{GS} = -6\text{V}$ , $V_{DS} = -75\text{V}$ , $I_D = -1\text{A}$		10	15	nC
Gate Source Charge	$Q_{gs}$			2.5		
Gate Drain Charge	$Q_{gd}$			5		
Turn-On Delay Time	$t_{d(on)}$	$V_{GEN} = -10\text{V}$ , $V_{DD} = -75\text{V}$ , $R_L = 75\Omega$ , $I_D = -1\text{A}$ , $R_G = 1\Omega$		10	20	ns
Turn-On Rise Time	$t_r$			12	25	
Turn-Off Delay Time	$t_{d(off)}$			30	60	
Turn-Off Fall Time	$t_f$			12	25	

Note 2. Pulse Test : Pulse width=300 $\mu\text{s}$ , duty cycle $\leq 2\%$ .

3. Switching characteristics are independent of operating junction temperature.

4. Granted by design, not subject to producing.

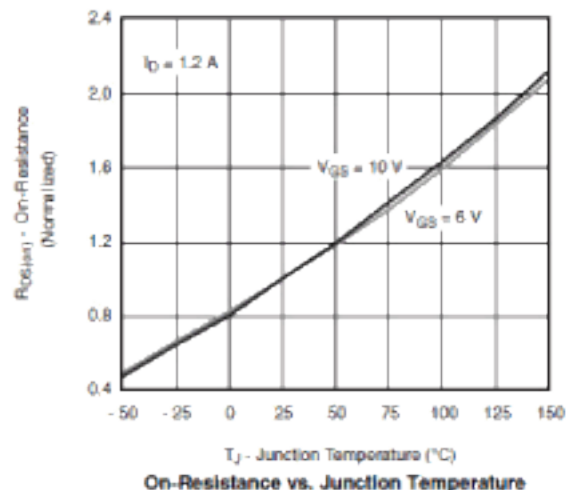
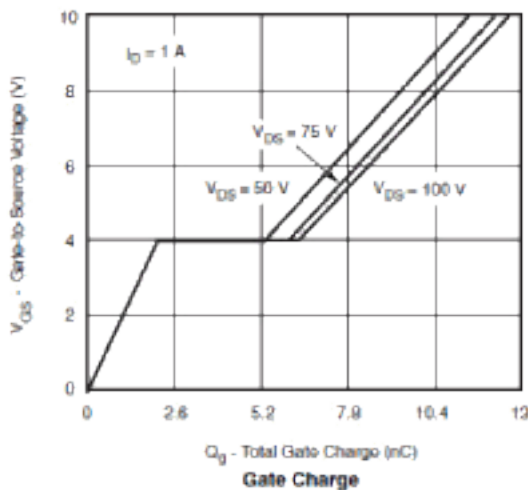
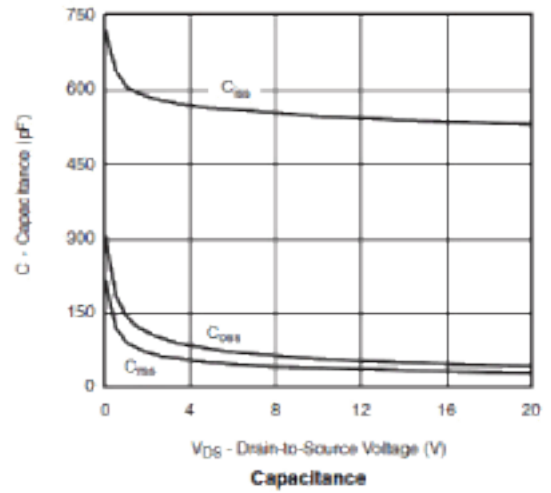
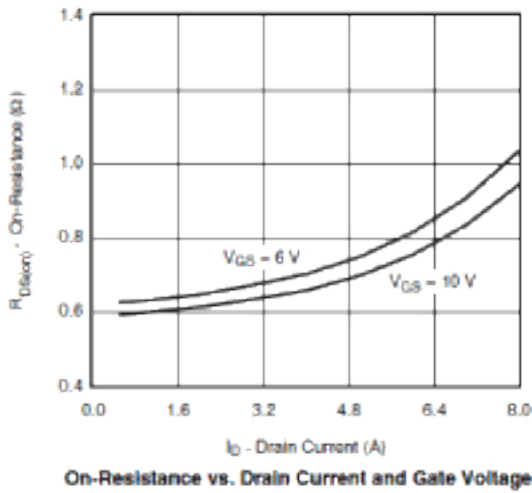
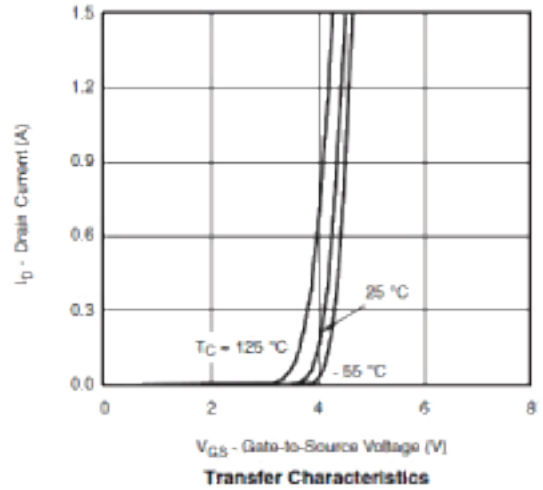
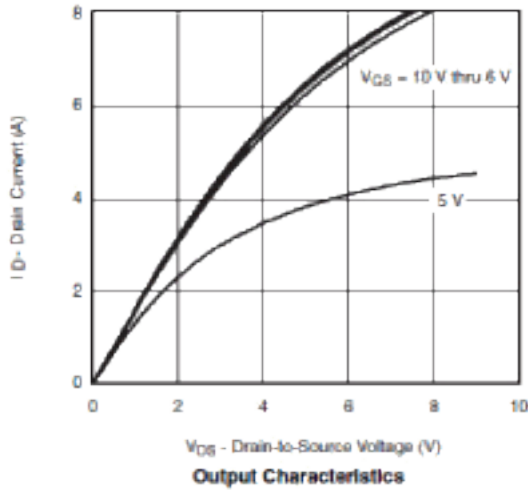
## ■ Marking

Marking	39W**
---------	-------

## P Channel MOSFET

### 2SJ3053DV

■ Typical Characteristics



P Channel MOSFET

2SJ3053DV

