

DFNWB2*2-6L-A Plastic-Encapsulate MOSFETS

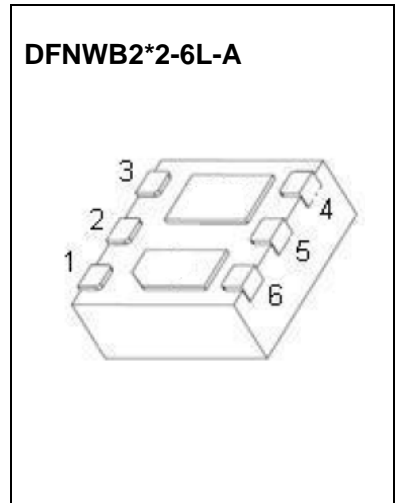
CJMP06 P-Channel Power MOSFET

FEATURE

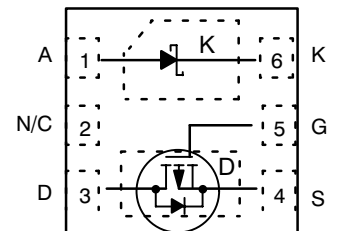
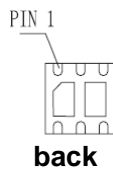
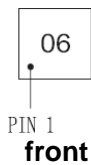
- Featuring a MOSFET and Schottky Diode
- Independent Pinout to each Device to Ease Circuit Design
- Ultra Low V_F Schottky

APPLICATIONS

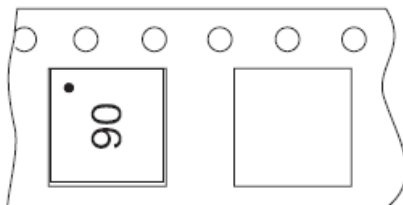
- Li-Ion Battery Charging
- High Side DC-DC Conversion Circuits
- High Side Device for Small Brushless DC Motors
- Power Managemnet in Portable , Battery Powered Products



MARKING:



Tape Drawing (Unit : mm)



MOSFET MAXIMUM RATINGS ($T_a=25^{\circ}\text{C}$ unless otherwise noted)

Parameter	Symbol	Value	Unit
Drain-Source Voltage	V_{DS}	-20	V
Gate-Source Voltage	V_{GS}	± 8	
Continuous Drain Current	I_D	-2	A
Power Dissipation	P_D	0.7	W
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	178	$^{\circ}\text{C}/\text{W}$
Storage Temperature	T_j	150	$^{\circ}\text{C}$
Junction Temperature	T_{stg}	-55 ~+150	

MOSFET ELECTRICAL CHARACTERISTICS ($T_a=25^{\circ}\text{C}$ unless otherwise noted)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
On/Off Characteristics						
Drain-source breakdown voltage	$V_{(BR)DSS}$	$V_{GS} = 0V, I_D = -250\mu A$	-20			V
Gate-threshold voltage	$V_{GS(th)}$	$V_{DS} = V_{GS}, I_D = -250\mu A$	-0.4		-1	
Gate-body leakage current	I_{GSS}	$V_{DS} = 0V, V_{GS} = \pm 8V$			± 100	nA
Zero gate voltage drain current	I_{DSS}	$V_{DS} = -20V, V_{GS} = 0V$			-1	μA
Drain-source on-state resistance (note 1)	$R_{DS(on)}$	$V_{GS} = -4.5V, I_D = -2.8A$			110	m Ω
		$V_{GS} = -2.5V, I_D = -2.0A$			150	
Forward transconductance (note 1)	g_{FS}	$V_{DS} = -10V, I_D = -2.7A$	5.5			S
Charges , Capacitances and Gate resistance						
Input capacitance (note 2)	C_{iss}	$V_{DS} = -15V, V_{GS} = 0V, f = 1MHz$		480		pF
Output capacitance (note 2)	C_{oss}			46		
Reverse transfer capacitance (note 2)	C_{rss}			10		
Total gate charge	Q_g	$V_{DS} = -6V, V_{GS} = -4.5V, I_D = -2.8A$		7.2		nC
Gate-source charge	Q_{gs}			2.2		
Gate-drain charge	Q_{gd}			1.2		
Switching times (note2)						
Turn-on delay time	$t_{d(on)}$	$V_{DS} = -6V, R_L = 6\Omega,$ $V_{GS} = -4.5V, R_{GEN} = 6\Omega$		38		ns
Rise time	t_r			25		
Turn-off delay time	$t_{d(off)}$			43		
Fall time	t_f			5		
Source-drain diode characteristics						
Forward on voltage (note1)	V_{SD}	$V_{GS} = 0V, I_S = -1A$			-1.4	V

Notes:

1. Pulse Test : Pulse width $\leq 300\mu s$, duty cycle $\leq 2\%$.
2. These parameters have no way to verify.

SCHOTTKY DIODE MAXIMUM RATINGS ($T_a=25^{\circ}\text{C}$ unless otherwise noted)

Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	20	V
DC blocking voltage	V_R	20	
Average rectified forward current	I_F	1	A

SCHOTTKY DIODE ELECTRICAL CHARACTERISTICS ($T_a=25^{\circ}\text{C}$ unless otherwise noted)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Forward voltage	V_F	$I_F = 0.1A$			0.4	
		$I_F = 0.5A$			0.5	
		$I_F = 1A$			0.575	
Reverse current	I_R	$V_R = 20V$			15	μA
		$V_R = 10V$			5	

