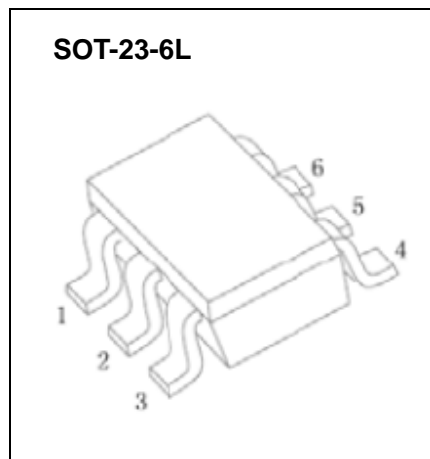


SOT-23-6L Plastic-Encapsulate MOSFETS

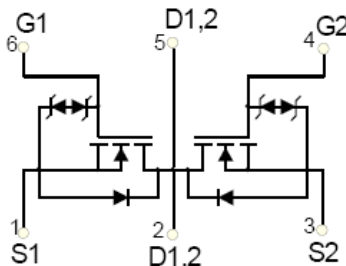
CJL8820 Dual N-Channel MOSFET

DESCRIPTION

The CJL8820 uses advanced trench technology to provide excellent $R_{DS(ON)}$ and low gate charge. It is ESD protected. This device is suitable for use as a uni-directional or bi-directional load switch, facilitated by its common-drain configuration.



MARKING:



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

Parameter	Symbol	Value	Unit
Drain-Source Voltage	V_{DS}	20	V
Gate-Source Voltage	V_{GS}	± 12	V
Continuous Drain Current	I_D	7	A
Pulsed Drain Current(note1)	I_{DM}^*	25	A
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	125	$^{\circ}C/W$
Junction Temperature	T_j	150	$^{\circ}C$
Storage Temperature	T_{stg}	-55~+150	$^{\circ}C$
Lead Temperature for Soldering Purposes(1/8" from case for 10 s)	T_L	260	$^{\circ}C$

*Repetitive rating: Pluse width limited by junction temperature.

ELECTRICAL CHARACTERISTICS (T_a=25°C unless otherwise noted)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
STATIC PARAMETERS						
Drain-source breakdown voltage	V _{(BR) DSS}	V _{GS} = 0V, I _D = 250μA	20			V
Zero gate voltage drain current	I _{DSS}	V _{DS} = 16V, V _{GS} = 0V			1	μA
Gate-body leakage current	I _{GSS}	V _{GS} = ±10V, V _{DS} = 0V			±10	μA
Gate threshold voltage (note 1)	V _{GS(th)}	V _{DS} = V _{GS} , I _D = 250μA	0.5		1.1	V
Drain-source on-resistance (note 1)	R _{DS(on)}	V _{GS} = 10V, I _D = 7A			21	mΩ
		V _{GS} = 4.5V, I _D = 6.6A			24	mΩ
		V _{GS} = 3.8V, I _D = 6A			28	mΩ
		V _{GS} = 2.5V, I _D = 5.5A			32	mΩ
		V _{GS} = 1.8V, I _D = 2A			50	mΩ
Forward tranconductance (note 1)	g _{FS}	V _{DS} = 5V, I _D = 7A	9			S
Diode forward voltage(note 1)	V _{SD}	I _S = 1A, V _{GS} = 0V			1	V
DYNAMIC PARAMETERS (note 2)						
Input Capacitance	C _{iss}	V _{DS} = 10V, V _{GS} = 0V, f = 1MHz		650		pF
Output Capacitance	C _{oss}			140		pF
Reverse Transfer Capacitance	C _{rss}			60		pF
Total gate charge	Q _g	V _{DS} = 10V, V _{GS} = 4.5V, I _D = 6A		8		nC
Gate-source charge	Q _{gs}			2.5		nC
Gate-drain charge	Q _{gd}			3		nC
SWITCHING PARAMETERS (note 2)						
Turn-on delay time	t _{d(on)}	V _{GS} = 5V, V _{DD} = 10V, R _L = 1.5Ω, R _{GEN} = 3Ω		0.5		ns
Turn-on rise time	t _r			1		ns
Turn-off delay time	t _{d(off)}			12		ns
Turn-off fall time	t _f			4		ns

Notes :

1. Pulse Test : Pulse width ≤ 300μs, duty cycle ≤ 0.5%.
2. Guaranteed by design, not subject to production testing.

