

**:YUhiFYg**

- Advanced high cell density Trench technology
- Super Low Gate Charge
- Excellent CdV/dt effect decline
- Green Device Available

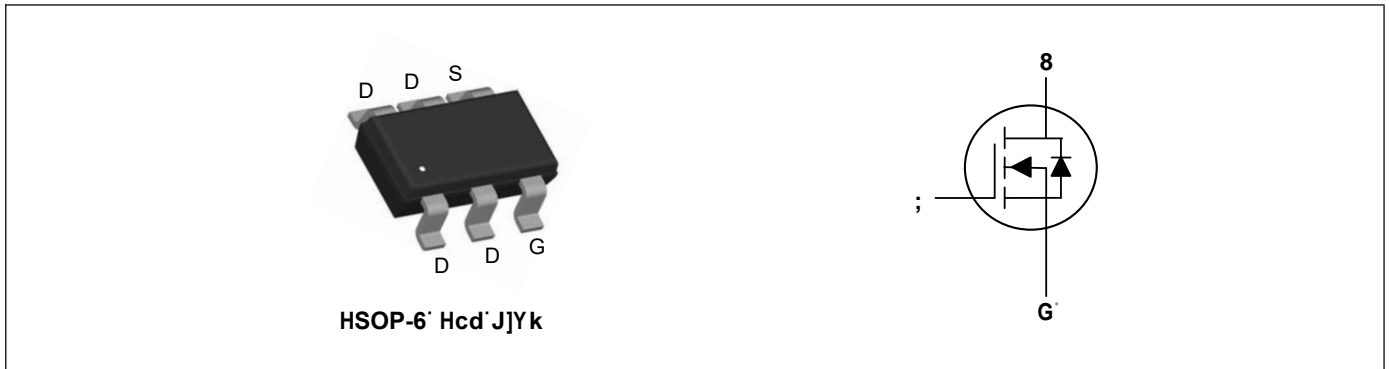
**DfcXiWh Gi a aUfm**



$V_{DS}$	110	V
$I_D$	3	A
$R_{DS(ON)}$ (at $V_{GS}=10V$ )	280	m $\Omega$

**5dd'WUhcBg**

- High Frequency Point-of-Load, Synchronous Buck Converter
- Networking DC-DC Power System
- Load Switch



**5Vgc`ihY AUI]a ia FUh]b[ (gfH51&) °Cž i b`Ygg ch\Yfk]gY bchYXL**

DufUa YhYf	Gma Vc`	FUh]b [	I b]hg
Drain-Source Voltage	$V_{DS}$	110	V
Gate-Source Voltage	$V_{GS}$	$\pm 20$	V
Continuous Drain Current <sup>1</sup>	$I_D@T_A=25^\circ C$	3	A
Continuous Drain Current <sup>1</sup>	$I_D@T_A=70^\circ C$	2	A
Pulsed Drain Current <sup>2</sup>	$I_{DM}$	10	A
Total Power Dissipation <sup>3</sup>	$P_D@T_A=25^\circ C$	1.25	W
Total Power Dissipation <sup>3</sup>	$P_D@T_A=70^\circ C$	0.8	W
Storage Temperature Range	$T_{STG}$	-55 to 150	°C
Operating Junction Temperature Range	$T_J$	-55 to 150	°C

**H\Yf a U` 7 \UfUWhYf]gh]Wg**

DufUa YhYf	Gma Vc`	Hmd	AUI	I b]h
Thermal Resistance Junction-Ambient <sup>1</sup> (t ≤10s)	$R_{\theta JA}$	---	62.5	°C/W
Thermal Resistance Junction-Ambient <sup>1</sup> (Steady State)		---	110	°C/W

**9`YWhf]WU` 7\UfUWhYf]gh]Wg flH>1&) °Cž i b`Ygg ch\Yf k]gY bchYXł**

DUFU a YhYf	Gm a Vc`	7 cbX]h]cbg	A]b	Hmd	AUI	I b]h
Drain-Source Breakdown Voltage	$BV_{DSS}$	$V_{GS}=0V, I_D=250\mu A$	110	---	---	V
Static Drain-Source On-Resistance	$R_{DS(ON)}$	$V_{GS}=10V, I_D=3A$	---	260	280	mΩ
Gate Threshold Voltage	$V_{GS(th)}$	$V_{GS}=V_{DS}, I_D=250\mu A$	1	2	2.5	V
Drain-Source Leakage Current	$I_{DSS}$	$V_{DS}=80V, V_{GS}=0V, T_A=25^\circ C$	---	---	1	μA
		$V_{DS}=80V, V_{GS}=0V, T_A=125^\circ C$	---	---	5	μA
Gate-Source Leakage Current	$I_{GSS}$	$V_{GS}=\pm 20V, V_{DS}=0V$	---	---	±100	nA
On state drain current	$I_{D(ON)}$	$V_{GS}=10V, V_{DS}=5V$	3	---	---	A
Forward Transconductance	$g_{fs}$	$V_{DS}=10V, I_D=3A$	---	2.4	---	S
Total Gate Charge	$Q_g$	$V_{DS}=50V, V_{GS}=4.5V, I_D=1.5A$	---	4.1	---	nC
Gate-Source Charge	$Q_{gs}$		---	1.4	---	
Gate-Drain Charge	$Q_{gd}$		---	1.9	---	
Turn-On Delay Time	$T_{d(on)}$	$V_{DD}=25V, V_{GS}=10V, R_G=6\Omega, I_D=1.5A, R_L=33.3\Omega$	---	5.7	---	ns
Rise Time	$T_r$		---	4.3	---	
Turn-Off Delay Time	$T_{d(off)}$		---	12.8	---	
Fall Time	$T_f$		---	4.4	---	
Input Capacitance	$C_{iss}$	$V_{DS}=15V, V_{GS}=0V, f=1MHz$	---	332	---	pF
Output Capacitance	$C_{oss}$		---	40	---	
Reverse Transfer Capacitance	$C_{rss}$		---	29	---	

**8fU]b!Gc i fWY 8]cXY 7\UfUWhYf]gh]Wg**

DUFU a YhYf	Gm a Vc`	7 cbX]h]cbg	A]b	Hmd	AUI	I b]h
Continuous Source Current <sup>1</sup>	$I_S$	$T_A=25^\circ C$	---	---	2.5	A
Diode Forward Voltage <sup>2</sup>	$V_{SD}$	$V_{GS}=0V, I_S=1A, T_J=25^\circ C$	---	---	1.2	V

**BchY.**

- The data tested by surface mounted on a 1 inch<sup>2</sup> FR-4 board with 2OZ copper.
- The data tested by pulsed , pulse width  $\leq 300\mu s$  , duty cycle  $\leq 2\%$
- The power dissipation is limited by 150°C junction temperature

Hmd]WU` 7\UfUWhYf]gh]Wg



