

## N-channel Double MOSFET

### Features

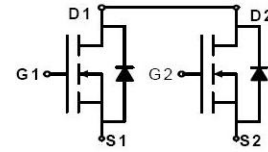
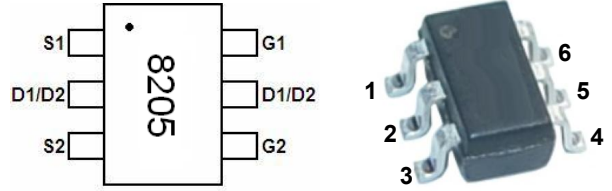
Advanced trench technology to provide excellent  $R_{DS(on)}$ , low gate charge and operation with gate voltages as low as 2.5V. HF Product.

### Applications

Use as a Battery protection , Switching application.

### Marking

Marking: 8205



SOT23-6

### Absolute Maximum Ratings(Ta=25°C)

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	$V_{DS}$	20	V
Drain Current - Continuous	$I_D(Ta=25^\circ C)$	6	A
Drain Current - Continuous	$I_D(Ta=70^\circ C)$	4.8	A
Drain Current – Pulsed	$I_{DM}$	20	A
Gate-Source Voltage	$V_{GS}$	$\pm 12$	V
Maximum Power Dissipation	$P_D(Ta=25^\circ C)$	1.14	W
Thermal Resistance Junction-to-Ambient	$R_{\theta JA}$	110	$^\circ C/W$
Junction Temperature	$T_j$	150	$^\circ C$
Storage Temperature Range	$T_{stg}$	-55 ~ 150	$^\circ C$

**Electrical Characteristics(Ta=25°C)**

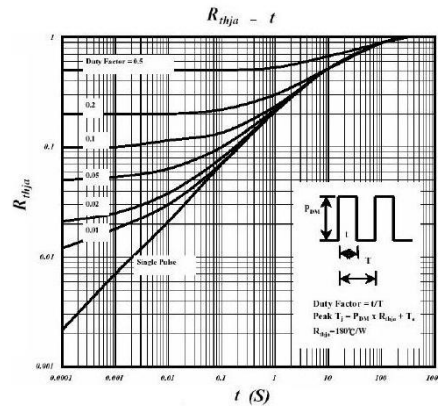
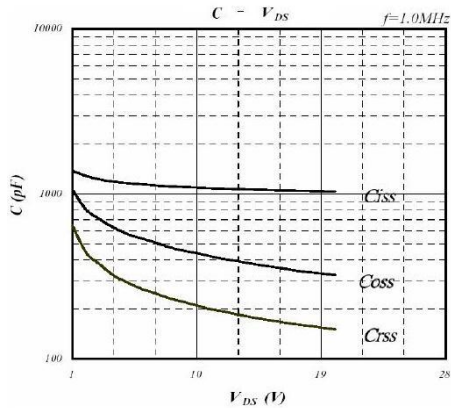
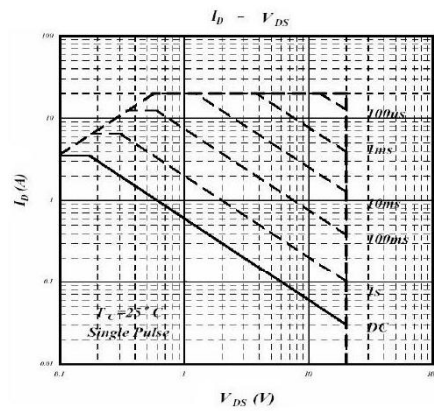
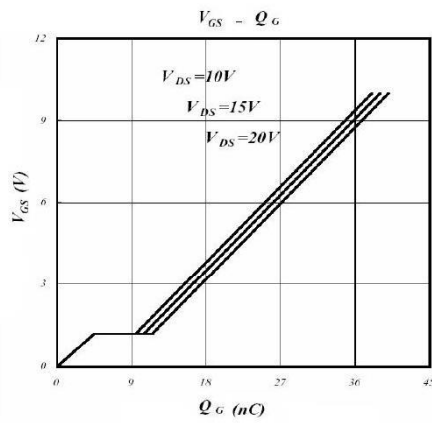
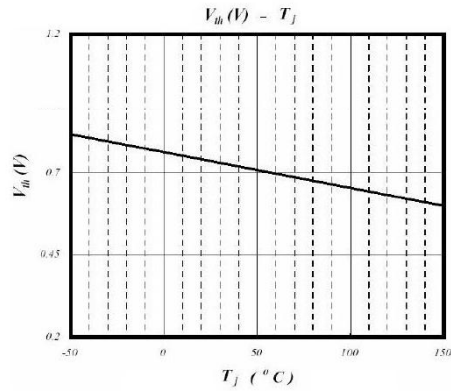
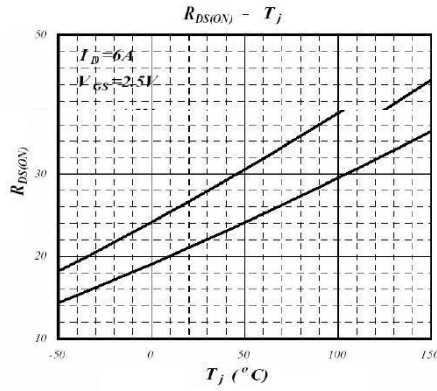
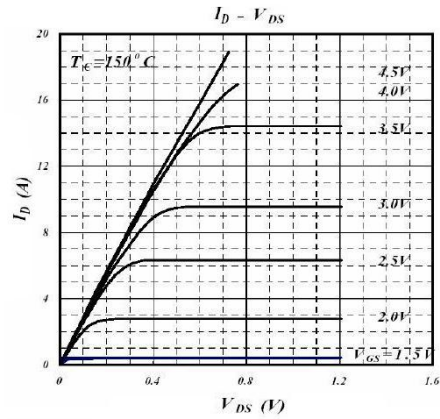
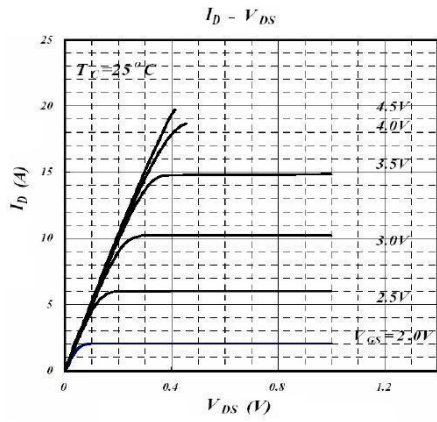
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	$BV_{DSS}$	$V_{GS}=0V$ $I_D=250\mu A$	20			V
Drain-Source Leakage Current( $T_j=25^\circ C$ )	$I_{DSS}$	$V_{DS}=20V$ $V_{GS}=0V$			1	$\mu A$
Drain-Source Leakage Current( $T_j=70^\circ C$ )	$I_{DSS}$	$V_{DS}=16V$ $V_{GS}=0V$			25	$\mu A$
Gate-Source Leakage Current	$I_{GSS}$	$V_{GS}=\pm 10V$ $V_{DS}=0V$			$\pm 100$	nA
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS}=V_{GS}$ $I_D=250\mu A$	0.5		1.2	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	$V_{GS}=4.5V$ $I_D=6.0A$			24	m $\Omega$
		$V_{GS}=2.5V$ $I_D=5.2A$			30	m $\Omega$
Forward Transconductance	$g_{FS}$	$V_{DS}=10V$ $I_D=6.0A$		20		S
Forward On Voltage	$V_{SD}$	$V_{GS}=0V$ $I_S=1.7A$			1.2	V
Input Capacitance	$C_{iss}$	$V_{DS}=20V$ $V_{GS}=0V$ $f=1.0MHz$		1035		pF
Output Capacitance	$C_{oss}$			320		pF
Reverse Transfer Capacitance	$C_{rss}$			150		pF
Turn-on Delay Time	$t_{d(on)}$	$V_{DS}=10V$ $I_D=1A$ $V_{GS}=5V$ $R_G=6\Omega$ $R_D=10\Omega$		30		ns
Rise Time	$t_r$			70		ns
Turn-off Delay Time	$t_{d(off)}$			40		ns
Fall Time	$t_f$			65		ns

Notes:

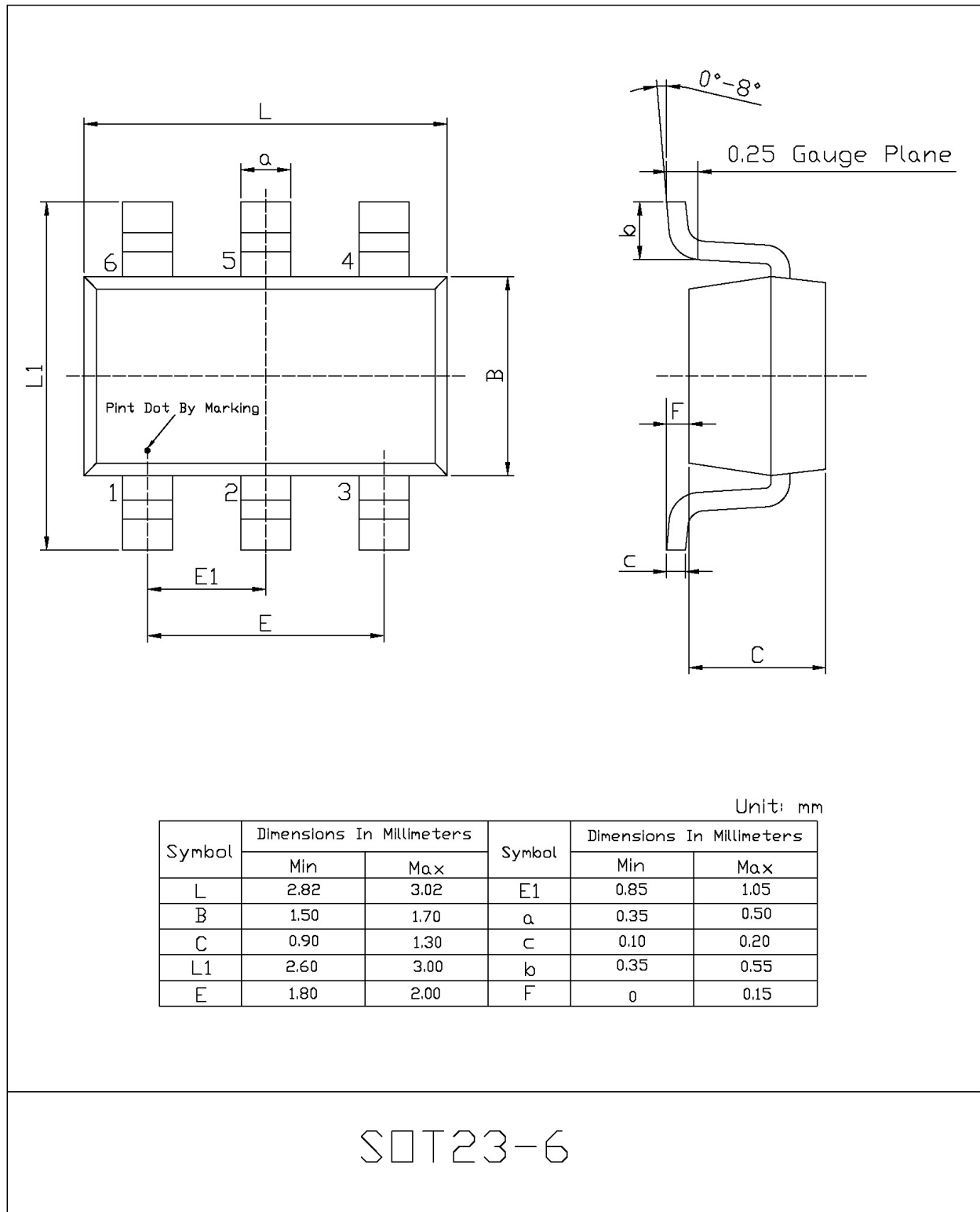
 1 , Surface Mounted on FR4 Board,  $t \leq 10$  sec.

 2 , Pulse Test: Pulse Width  $\leq 300\mu s$ , Duty Cycle  $\leq 2\%$ .

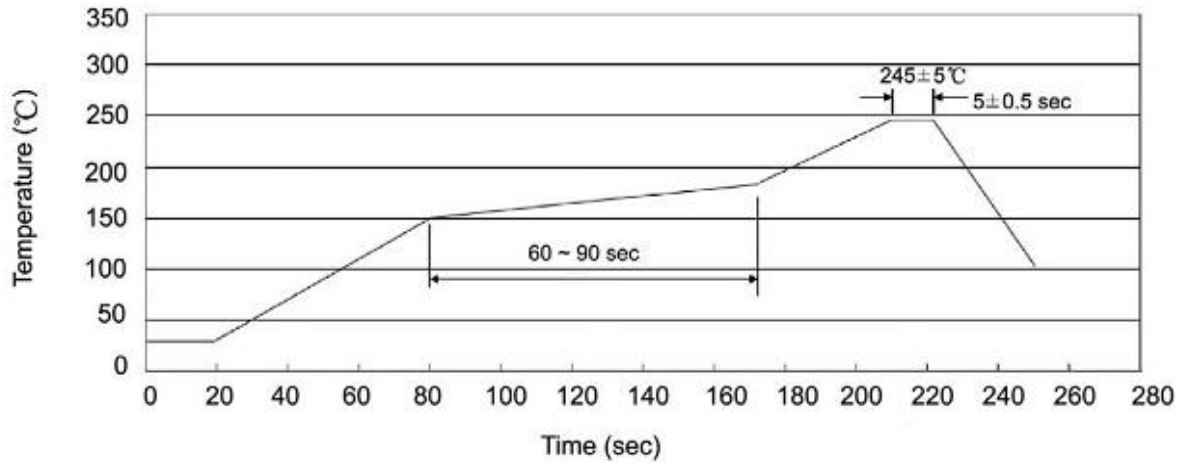
Electrical Characteristic Curve



## Package Dimensions



Temperature Profile for IR Reflow Soldering(Pb-Free)



Note:

1. Preheating: 150~180 °C, Time: 60~90sec.
2. Peak Temp.: 245 ± 5°C, Duration: 5 ± 0.5sec.
3. Cooling Speed: 2~10°C/sec.

Resistance to Soldering Heat Test Conditions

Temp: 260 ± 5 °C      Time: 10 ± 1 sec

单击下面可查看定价，库存，交付和生命周期等信息

[>>SHIKUES\(时科\)](#)