

描述 / Descriptions

SOP-8 塑封封装 P 沟道 MOS 场效应管。

P-Channel Enhancement Mode Field Effect Transistor in a SOP-8 Plastic Package.

特征 / Features

$V_{DS} (V) = -100V$ $I_D = -5.0A$ ($V_{GS} = \pm 20V$)

$R_{DS(ON)}@-10V \leq 200m\Omega$ (Typ. 163m Ω)

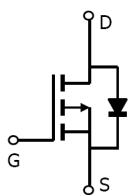
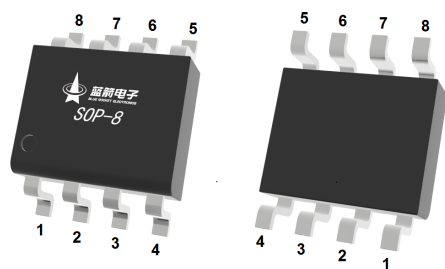
$R_{DS(ON)}@-4.5V \leq 230m\Omega$ (Typ. 177m Ω)

无卤产品。HF Product.

用途 / Applications

电机驱动设备，大功率逆变器系统，适配器设备。

Motor driver appliances, High power inverter system, Adapter appliances.

内部等效电路 / Equivalent Circuit**引脚排列 / Pinning**

PIN 1 : S PIN 2 : S PIN 3 : S PIN 4 : G

PIN 5 : D PIN 6 : D PIN 7 : D PIN 8 : D

印章代码 / Marking

见印章说明。

See Marking Instructions.

极限参数 / Absolute Maximum Ratings(Ta=25°C)

参数 Parameter	符号 Symbol	数值 Rating	单位 Unit
Drain-Source Voltage	V _{DSS}	-100	V
Drain Current*	I _D	-5.0	A
Drain Current – Pulsed*,**	I _{DM}	-8.0	A
Gate-Source Voltage	V _{GS}	±20	V
Power Dissipation	P _D	1.78	W
Storage Temperature Range	T _{stg}	-55~150	°C
Thermal Resistance-Junction to Ambient*	R _{θJA}	70	°C/W

Notes :

* Surface Mounted on 1 in² pad area, t ≤ 10 sec

** Pulse width ≤ 300 μs, duty cycle ≤ 2 %

*** limited by bonding wire.

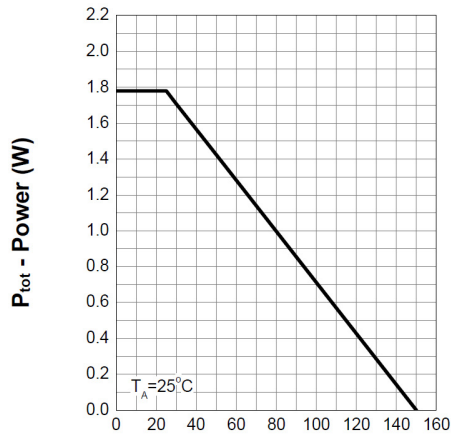
电性能参数 / Electrical Characteristics(Ta=25°C)

参数 Parameter	符号 Symbol	测试条件 Test Conditions	最小值 Min	典型值 Typ	最大值 Max	单位 Unit
Drain-Source Breakdown Voltage	BV _{DSS}	V _{GS} =0V I _D =-250μA	-100			V
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} =-80V V _{GS} =0V			1.0	μA
Gate-Body Leakage Current Forward	I _{GSS}	V _{GS} =±20V V _{DS} =0V			±0.1	μA
Gate Threshold Voltage	V _{GS(th)}	V _{DS} =V _{GS} I _D =-250μA	-1.0		-2.0	V
Static Drain-Source On-Resistance	R _{DS(on)}	V _{GS} =-10V I _D =-2A		163	200	mΩ
		V _{GS} =-4.5V I _D =-1A		177	230	
Drain-Source Diode Forward Voltage	V _{SD}	V _{GS} =0V I _S =-2A			-1.3	V
Input Capacitance	C _{iss}	V _{DS} =-50V V _{GS} =0V f=1.0MHz		1523		pF
Output Capacitance	C _{oss}			37		
Reverse Transfer Capacitance	C _{rss}			34		
Total Gate Charge	Q _g	V _{GS} =-10V V _{DS} =-50V I _D =-2A		29		nC
Gate Source Charge	Q _{gs}			6.2		
Gate Drain Charge	Q _{gd}			3.2		

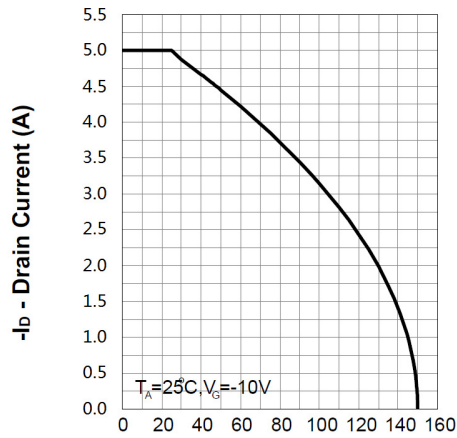
电性能参数 / Electrical Characteristics($T_a=25^{\circ}\text{C}$)

参数 Parameter	符号 Symbol	测试条件 Test Conditions	最小值 Min	典型值 Typ	最大值 Max	单位 Unit
Turn-On Delay Time	$t_{d(on)}$	$V_{GS}=-10\text{V}$ $V_{DS}=-50\text{V}$ $R_L=25\ \Omega$ $R_G=3.9\ \Omega$ $I_D=-2\text{A}$		11		ns
Turn-On Rise Time	t_r			27		
Turn-Off Delay Time	$t_{d(off)}$			289		
Turn-Off Fall Time	t_f			85		

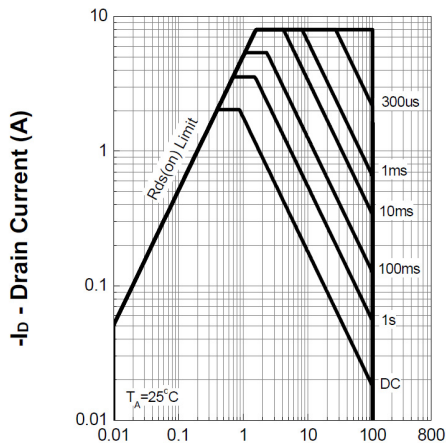
电参数曲线图 / Electrical Characteristic Curve



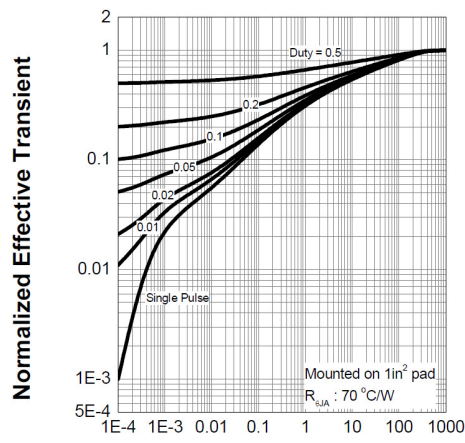
1. Power Capability



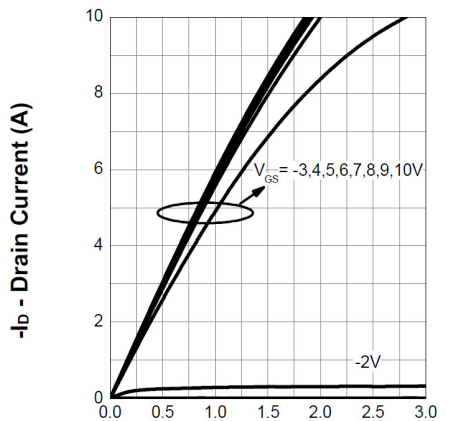
2. Current Capability



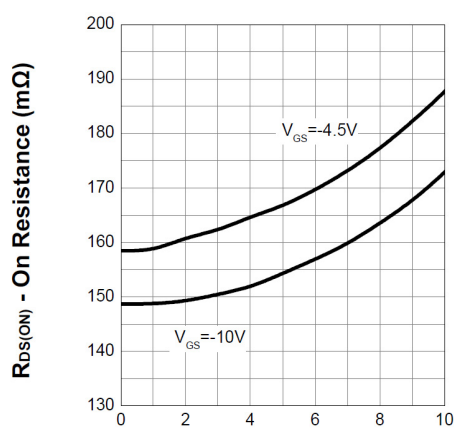
3. Safe Operating Area



4. Transient Thermal Impedance

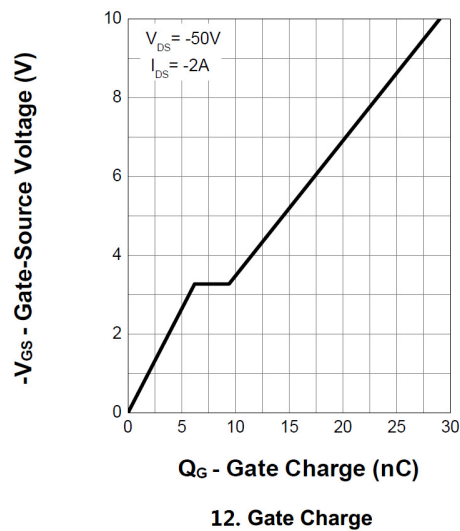
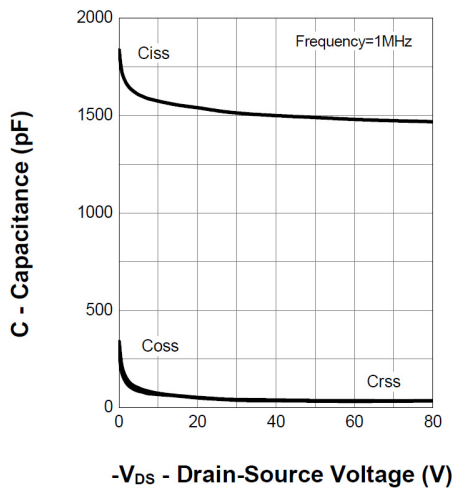
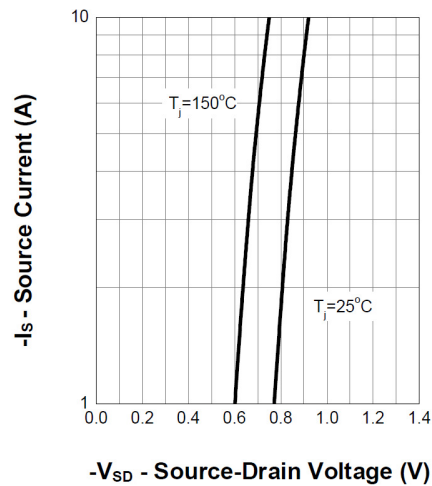
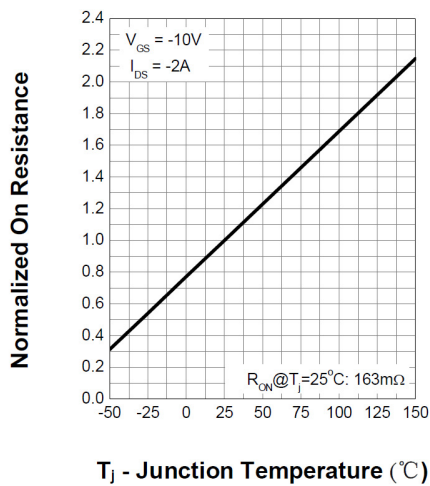
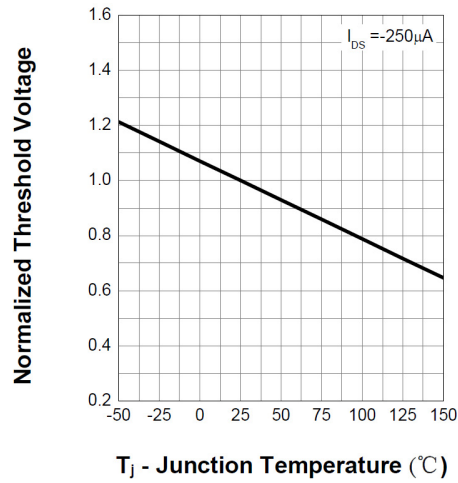
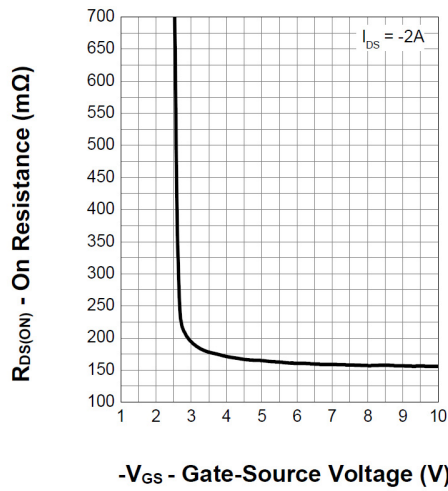


5. Output Characteristics



6. On Resistance

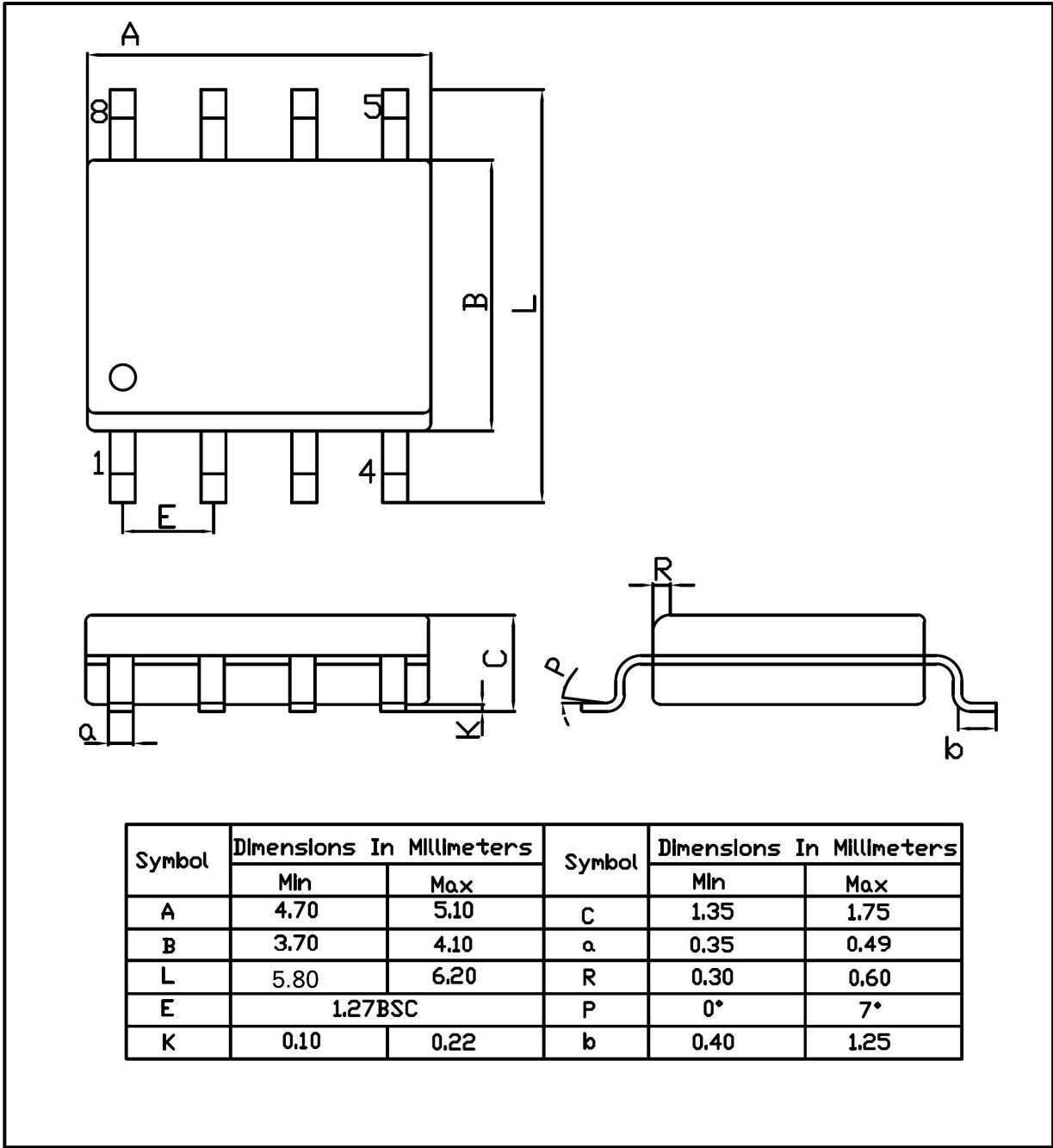
电参数曲线图 / Electrical Characteristic Curve



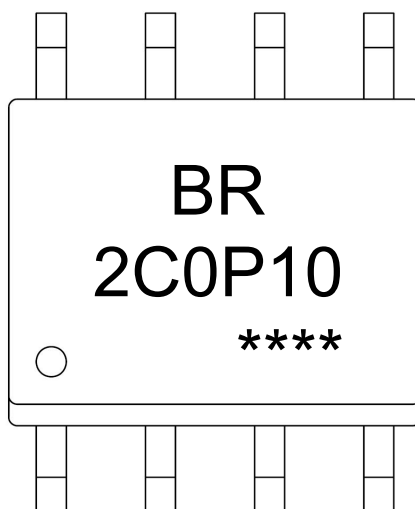
外形尺寸图 / Package Dimensions

SOP-8

Unit:mm



印章说明 / Marking Instructions



说明：

BR： 为公司代码

2C0P10： 为型号代码

****： 为生产批号代码，随生产批号变化

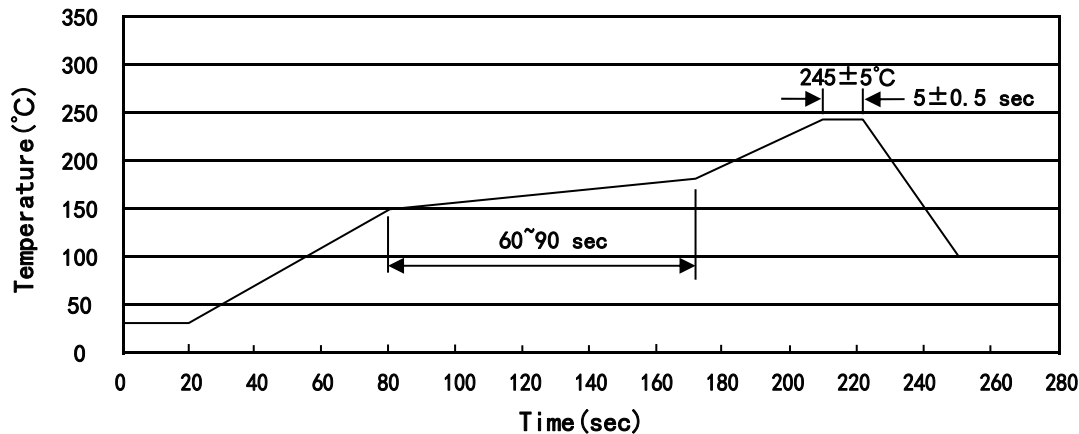
Note:

BR: Company Code

2C0P10: Product Type Code

****: Lot No. Code, code change with Lot No.

回流焊温度曲线图(无铅) / Temperature Profile for IR Reflow Soldering(Pb-Free)



说明：

- 1、预热温度 150~180°C，时间 60~90sec;
- 2、峰值温度 245±5°C，时间持续为 5±0.5sec;
- 3、焊接制程冷却速度为 2~10°C/sec.

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.

耐焊接热试验条件 / Resistance to Soldering Heat Test Conditions

温度：260±5°C

时间：10±1 sec.

Temp.:260±5°C

Time:10±1 sec

包装规格 / Packaging SPEC.

卷盘包装 / REEL

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm ³)		
	Units/Reel 只/卷盘	Reels/Inner Box 卷盘/盒	Units/Inner Box 只/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Reel	Inner Box 盒	Outer Box 箱
SOP/ESOP-8	4,000	2	8,000	6	48,000	13" ×12	360×360×50	380×335×366

使用说明 / Notices

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