

/ Descriptions

SOP-8 P MOS

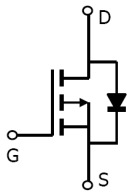
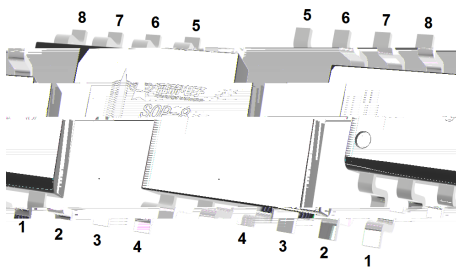
P-Channel Enhancement Mode Field Effect Transistor in a SOP-8 Plastic Package.

/ 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)

HF Product.

/ Applications

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

/ Equivalent Circuit**/ Pinning**

PIN1	S	PIN 2	S	PIN 3	S	PIN 4	G
PIN 5	D	PIN 6	D	PIN 7	D	PIN 8	D

/ Marking

See Marking Instructions.

/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	-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	
Thermal Resistance-Junction to Ambient*	$R_{\theta JA}$	70	/W

Notes

* Surface Mounted on 1 in² pad area, $t \leq 10$ sec** Pulse width $\leq 300 \mu s$, duty cycle $\leq 2\%$

*** limited by bonding wire.

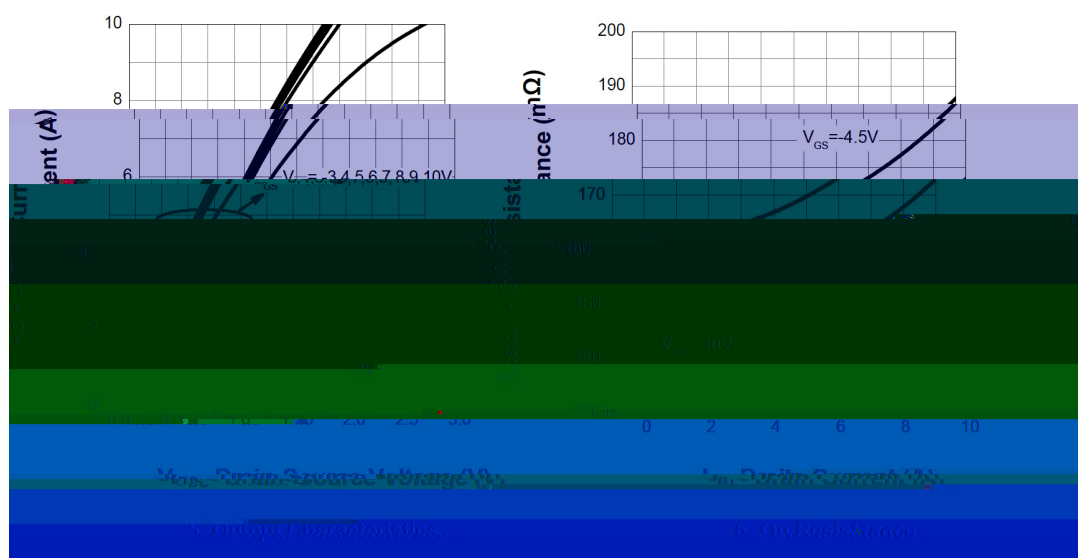
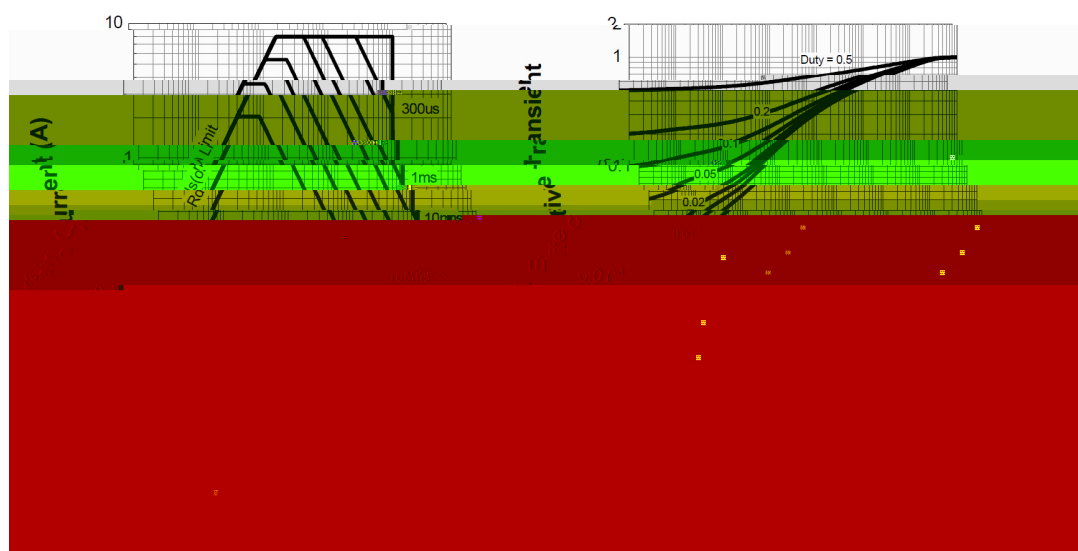
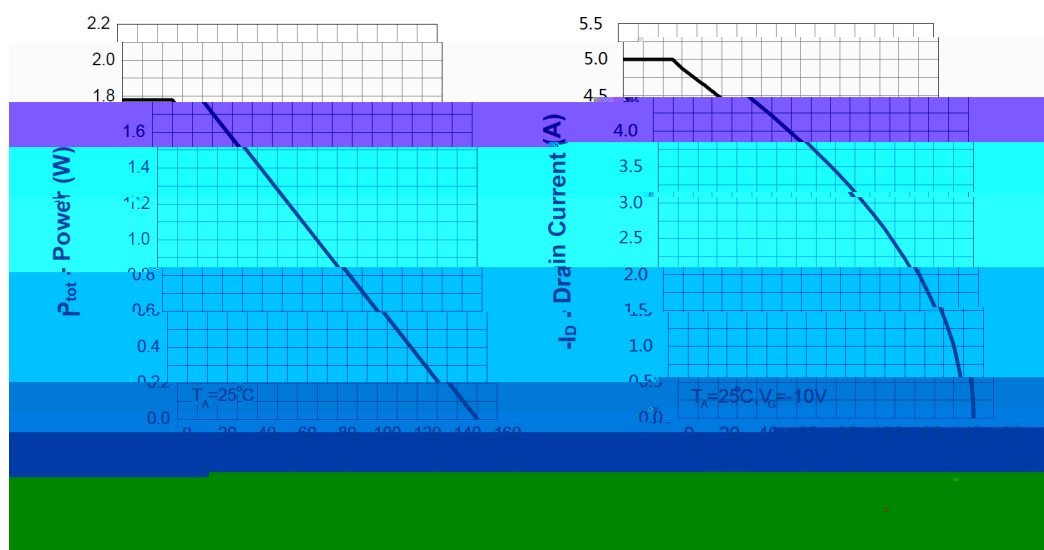
/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	BV_{DS}	$V_{GS}=0V$ $I_D=-250\mu A$	-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}	$V_{GS}=\pm 20V$ $V_{DS}=0V$			±0.1	μA
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS}=V_{GS}$ $I_D=-250\mu A$	-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		

/ Electrical Characteristics(Ta=25)

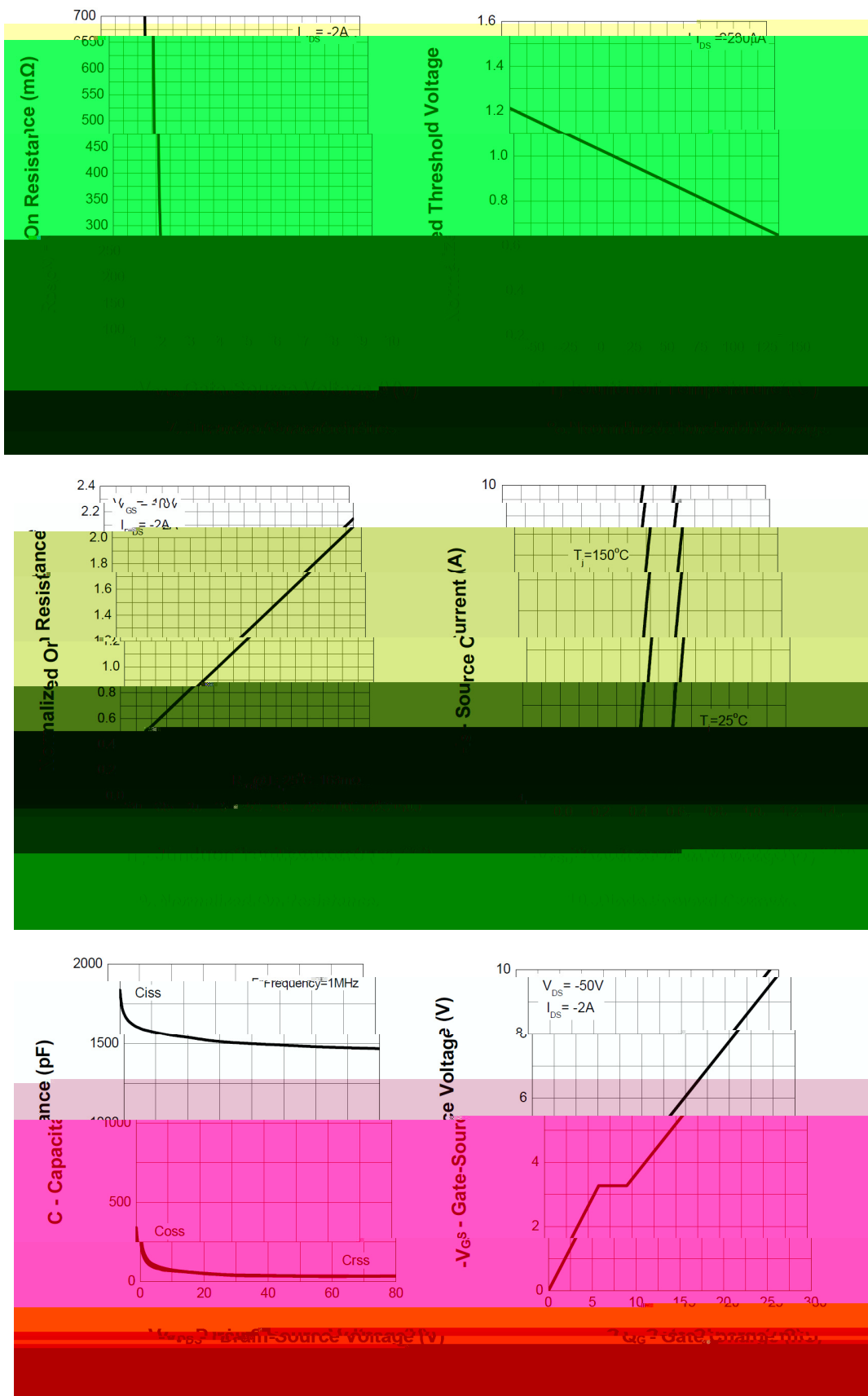
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Turn-On Delay Time	$t_{d(on)}$	$V_{GS}=-10V$ $V_{DS}=-50V$ $R_L=25\Omega$ $R_G=3.9\Omega$ $I_D=-2A$		11		ns
Turn-On Rise Time	t_r			27		
Turn-Off Delay Time	$t_{d(off)}$			289		
Turn-Off Fall Time	t_f			85		

Electrical Characteristic Curve

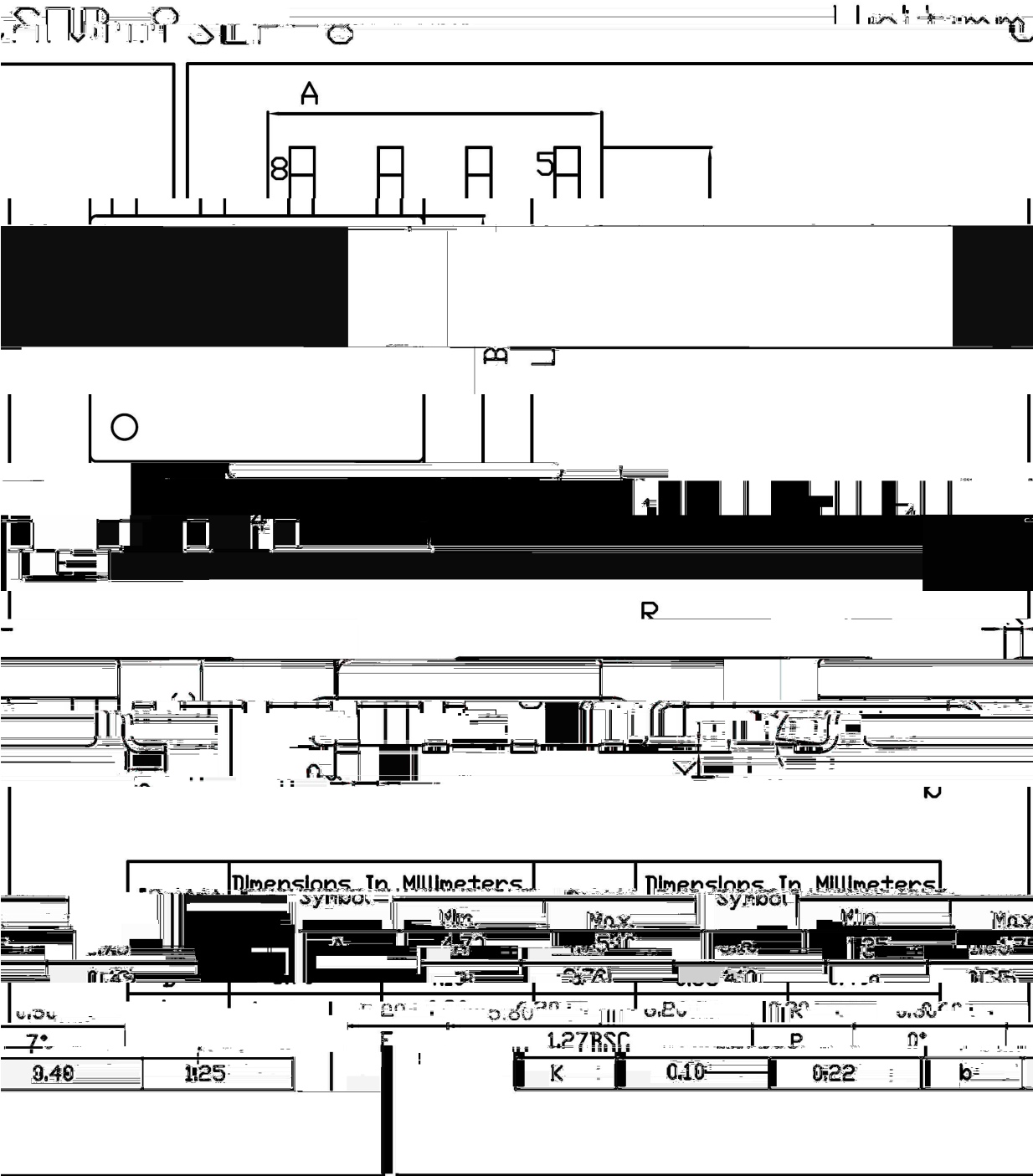




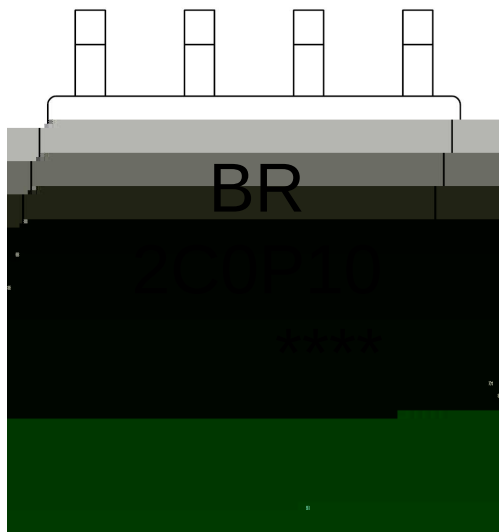
/ Electrical Characteristic Curve



/ Package Dimensions



/ Marking Instructions



BR

2C0P10

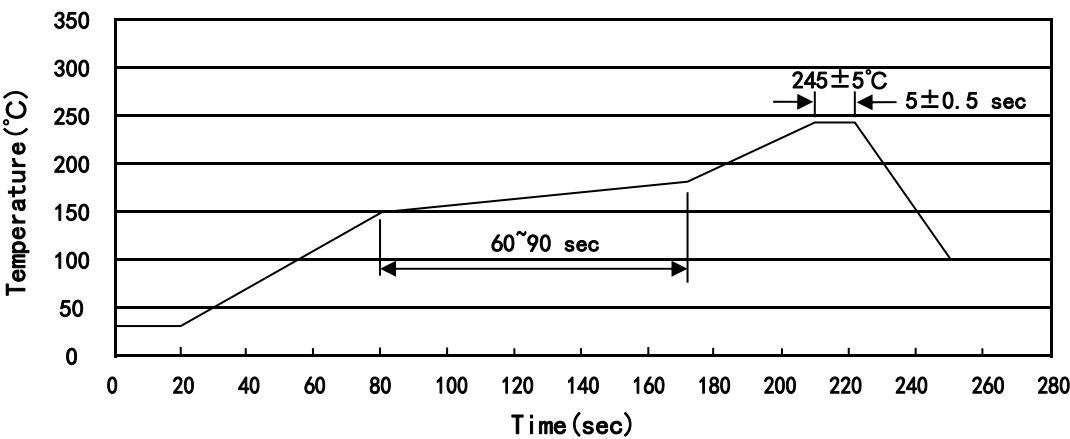
Note:

BR: Company Code

2C0P10: Product Type Code

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

() / Temperature Profile for IR Reflow Soldering(Pb-Free)



Note:

- 1

150 180

60 90sec;

1.Preheating:150~180 , Time:60~90sec.
- 2

245±5

5±0.5sec;

2.Peak Temp.:245±5 , Duration:5±0.5sec.
- 3

2 10 /sec.

3. Cooling Speed: 2~10 /sec.

/ Resistance to Soldering Heat Test Conditions

260±5 10±1 sec. Temp.:260±5 Time:10±1 sec

/ Packaging SPEC.

/ REEL

Package Type	Units					Dimension (unit mm ³)		
SOP/ESOP-8	4,000	2	8,000	6	48,000	13 ×12	360×360×50	380×335×366

/ Notices

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