/ Descriptions

SOP-8 P

Dual P-CHANNEL MOSFET in a SOP-8 Plastic Package .

/ Features

Dual P-CHANNEL

VDS(V)=-30V

ID=-7.1A

RDS(ON)<22mΩ (VGS=-10V)

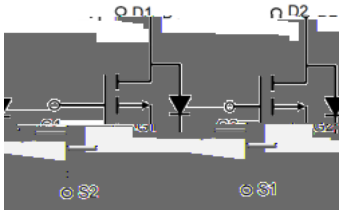
RDS(ON)<35mΩ (VGS=-4.5V)

HF Product.

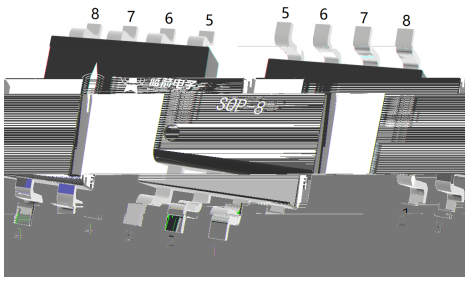
/ Applications

Power Management in Notebook Computer,Portable Equipment and Battery Powered Systems.

/ Equivalent Circuit



/ Pinning



PIN1 S1 PIN 2 G1 PIN 3 S2 PIN 4 G2

PIN 5 D2 PIN 6 D2 PIN 7 D1 PIN 8 D1

/ Marking

See Marking Instructions.

/ Absolute Maximum Ratings(Ta=25)

Parameter		Symbol	Rating	Unit
Drain-Source Voltage		V_{DS}	-30	V
Drain Current - Continuous		I_D	-7.1	A
Drain Current – Pulsed		I_{DM}	-40	A
Gate-Source Voltage		V_{GS}	±20	V
Power Dissipation		P_D	2	W
Single Pulse Avalanche Energy(L=0.5mH)		E_{AS}	152	mJ
Avalanche Current(L=0.5mH)		I_{AS}	-19.5	A
Junction and Storage Temperature Range		T_j, T_{stg}	-55 to 150	
Thermal resistance, junction - ambient	t ≤ 10s	$R_{\theta JA}$	62.5	/ W
	Steady-State		90	
Thermal resistance, junction - Lead	Steady-State	$R_{\theta JL}$	40	

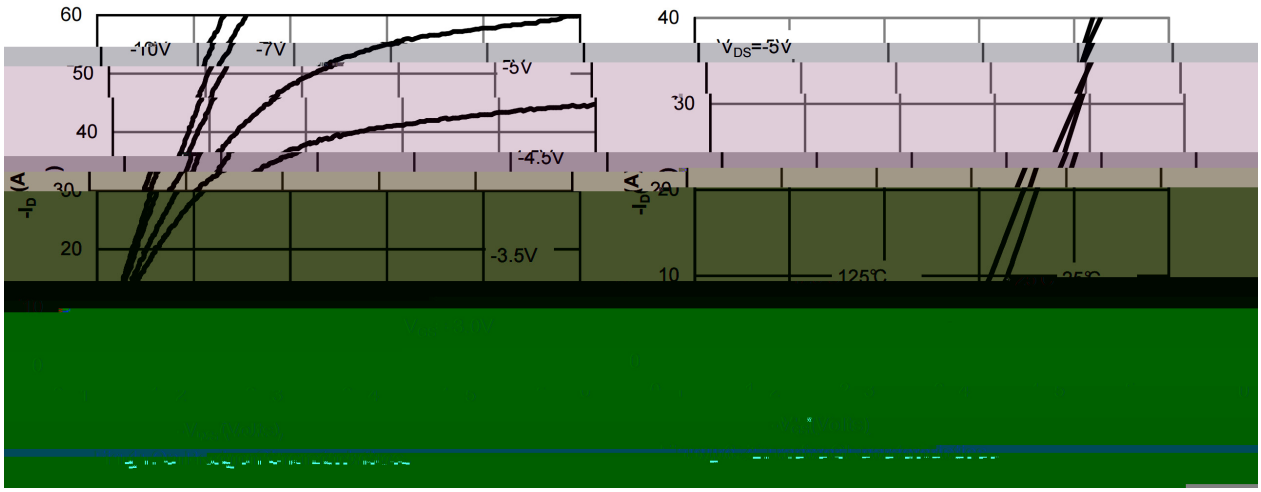
/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	BV_{DSS}	I_D=-250μA V_{GS}=0V	-30			V
Zero Gate Voltage Drain Current	I_{DSS}	V_{DS}=-30V V_{GS}=0V			-1	uA
Gate-Body leakage current	I_{GSS}	V_{DS}=0V, V_{GS}= ±20V			±100	nA
Gate Threshold Voltage	$V_{GS(th)}$	V_{DS}=VGS I_D=-250μA	-1	-1.3	-2.5	V
Static Drain-Source On-Resistance	$R_{DS(ON)}$	V_{GS}=-10V, I_D=-20A		20	22	m
		V_{GS}=-4.5V, I_D=-10A		28	35	
Diode Forward Voltage	V_{SD}	I_S=-1A, V_{GS}=0V			-1.2	V
Input Capacitance	C_{iss}	V_{DS}=-25V V_{GS}=0V f=1.0MHz		1430		pF
Output Capacitance	C_{oss}			580		
Reverse Transfer Capacitance	C_{rss}			350		
Gate resistance	R_g	V_{GS}=0V V_{DS}=0V f=1MHz		13		Ω
Total Gate Charge	$Q_{g(10V)}$	V_{GS}=-10V, V_{DS}=-15V, I_D=-7.1A		20		nC
Total Gate Charge	$Q_{g(4.5V)}$			9.8		
Gate Source Charge	Q_{gs}			3.7		
Gate Drain Charge	Q_{gd}			4.5		

/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Turn-On Delay Time	$t_{d(on)}$	V_{GS}=-10V V_{DS}=-15V R_L=0.75Ω R_{GEN}=3Ω		11		ns
Turn-On Rise Time	t_r			5.6		
Turn-Off Delay Time	$t_{d(off)}$			28		
Turn-Off Fall Time	t_f			11		

/ Electrical Characteristic Curve



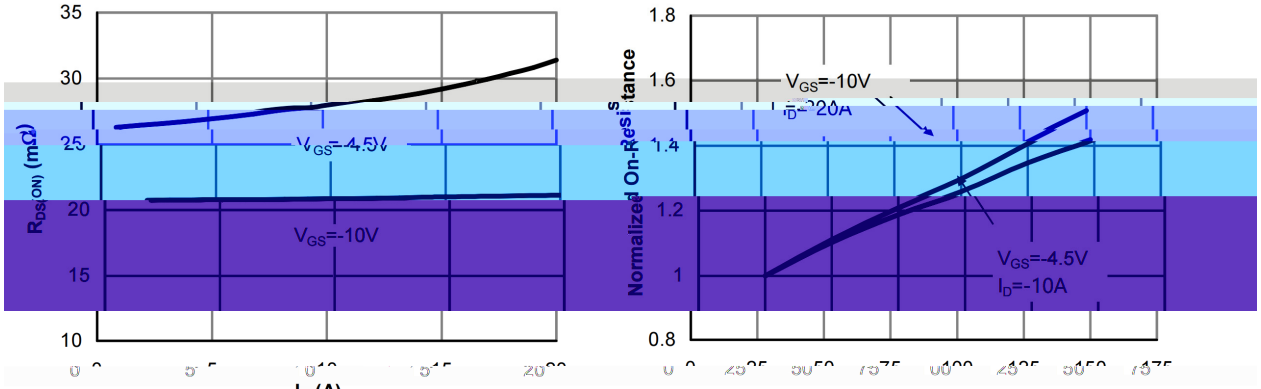
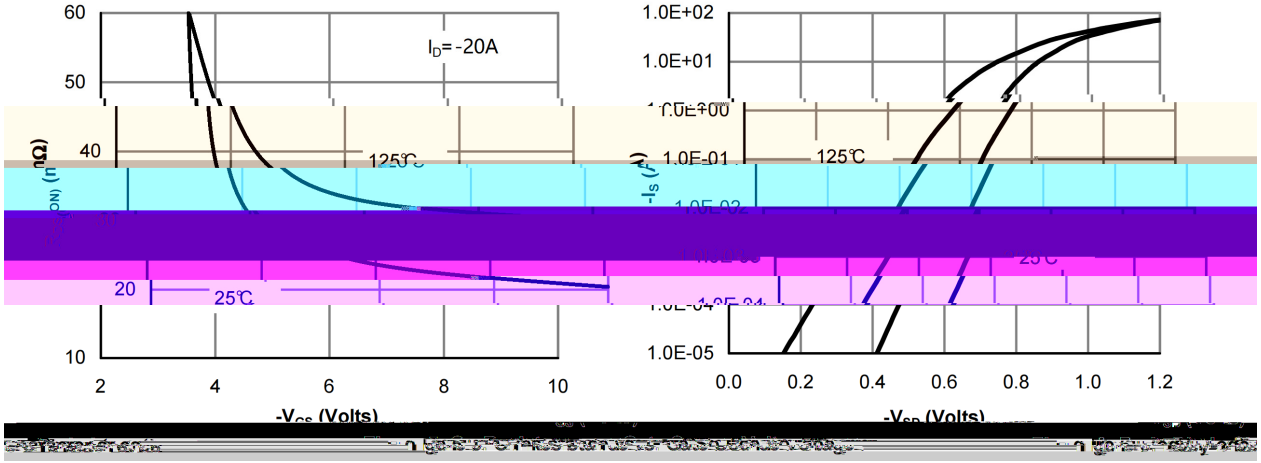


Figure 3: On-Resistance vs. Drain Current and Gate Voltage



/ Electrical Characteristic Curve

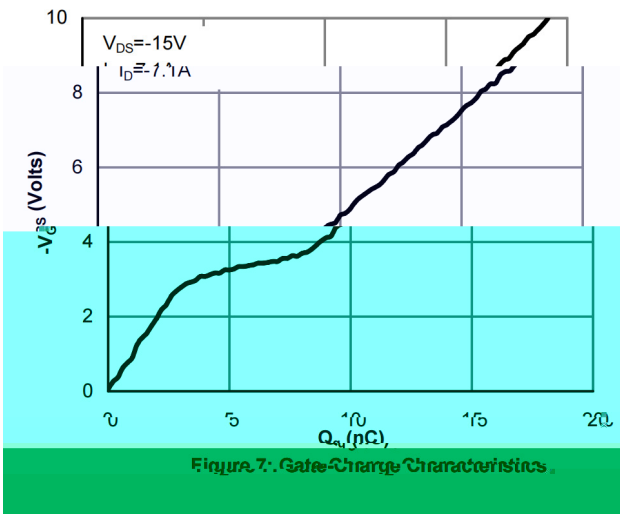


Figure 7: Gate-Charge Characteristics

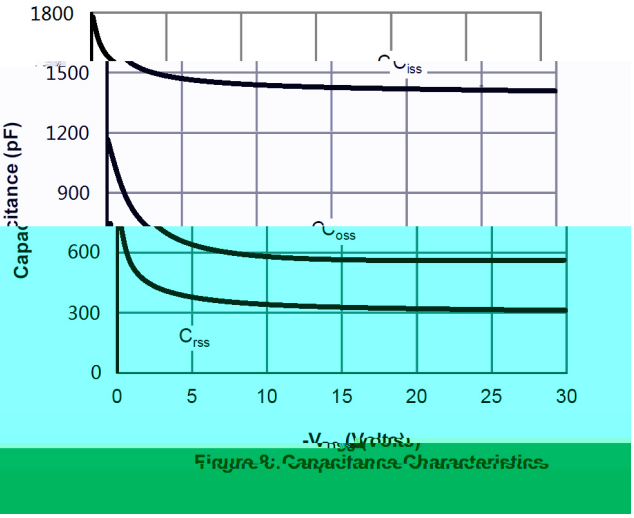
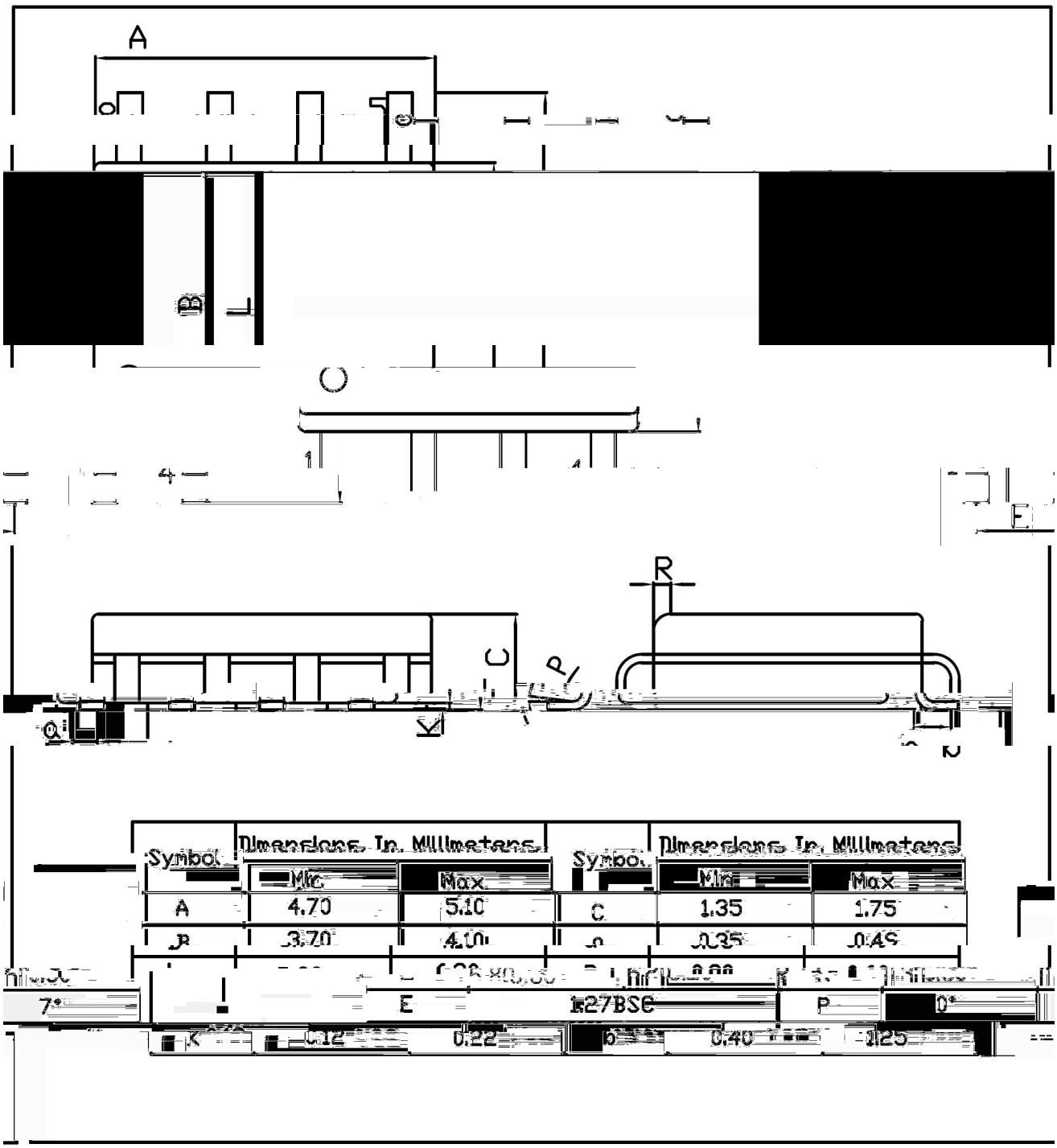


Figure 8: Capacitance Characteristics

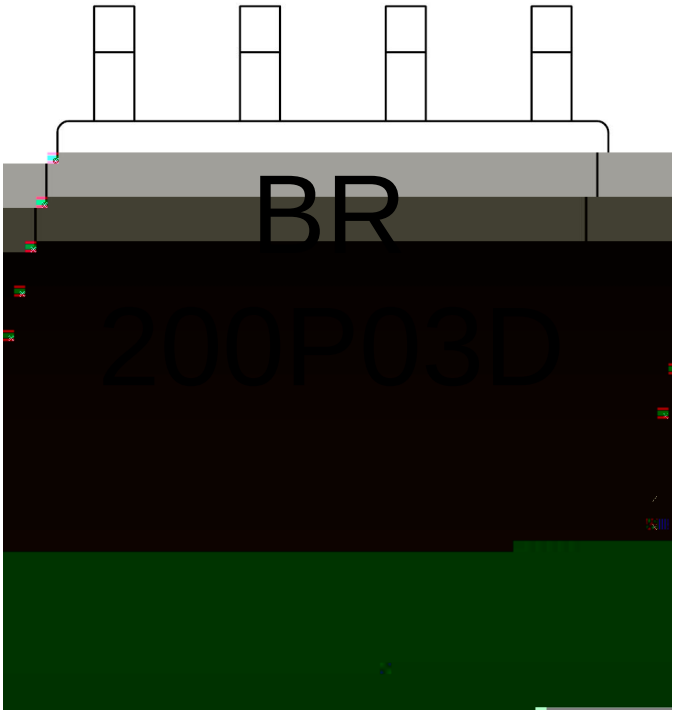
/ Package Dimensions

SOP-8 Unit:mm



Symbol	Dimensions In Millimeters		Symbol	Dimensions In Millimeters	
	Min	Max		Min	Max
A	4.70	5.10	C	1.35	1.75
B	3.70	4.10	c	0.35	0.45

/ Marking Instructions



BR

200P03D

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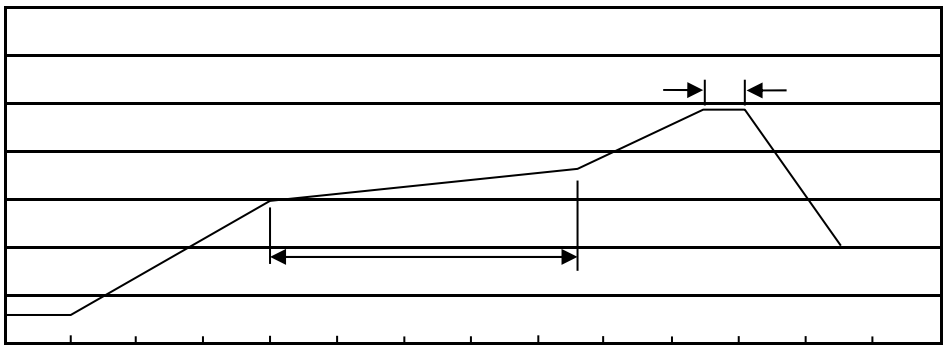
Note:

BR:	Company Code
200P03D:	Product Type
****:	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 mm³)
SOP/ESOP-8	4,000	2	8,000	6	48,000	13″ ×12	360×360×50	380×335×366

/ Notices