

/ Descriptions

PDFN5×6 P
P-Channel MOSFET in a PDFN5×6 Plastic Package.

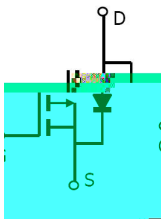
/ Features

$V_{DS} (V) = -100V$ $I_D = -73A (V_{GS} = \pm 20V)$
 $R_{DS(ON)} @ -10V \leq 19m\Omega (Typ. 17m\Omega)$
 $R_{DS(ON)} @ -4.5V \leq 21m\Omega (Typ. 18.5m\Omega)$
HF Product.

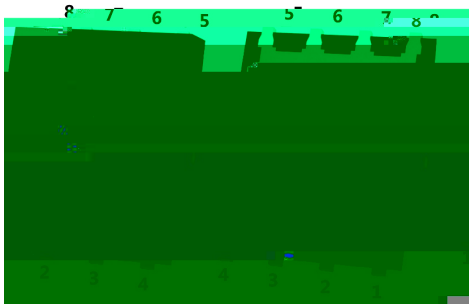
/ Applications

DC-DC
Motor drivers, DC-DC Converte.

/ Equivalent Circuit



/ Pinning



PIN1 2 3 S PIN4 G PIN5 6 7 8 D

Pin	极性
1	S
2	S
3	S
4	G
5	D
6	D
7	D
8	D

/ Marking

See Marking Instructions.

/ Electrical Characteristics(Ta=25 Unless Otherwise Noted)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	BV_{DSS}	$I_D = -250\mu A, V_{GS} = 0V$	-100			V
Drain Leakage Current	I_{DSS}	$V_{DS} = -80V, V_{GS} = 0V$			-1	μA
Gate Leakage current	I_{GSS}	$V_{DS} = 0V, V_{GS} = \pm 20V$			± 100	nA
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS} = V_{GS}, I_D = -250\mu A$	-1.0		-2.5	V
On-State Resistance	$R_{DS(on)}^a$	$V_{GS} = -10V, I_D = -30A$		17	19	m Ω
		$V_{GS} = -4.5V, I_D = -20A$		18.5	21	
Diode Forward Voltage	V_{SD}^a	$I_S = -30A, V_{GS} = 0V$			-1.3	V
Reverse Recovery Time	t_{rr}	$I_D = -30A, V_{GS} = 0V$ $dI_{SD}/dt = 100A/\mu s$		41		nS
Reverse Recovery Charge	Q_{rr}			75		nC
Input Capacitance	C_{iss}	$V_{GS} = 0, V_{DS} = -50V$ $f = 1MHz$		14265		pF
Output Capacitance	C_{oss}			301		
Reverse Transfer Capacitance	C_{rss}			30		
Total Gate Charge	Q_g	$V_{GS} = -10V, V_{DS} = -50V$ $I_D = -30A$		245		nC
Gate-Source Charge	Q_{gs}			56		
Gate-Drain Charge	Q_{gd}			27		
Turn-on Delay Time	$t_{d(ON)}$	$V_{GS} = -10V, V_{DS} = -50V$ $R_L = 1.66\Omega, R_G = 3.9\Omega$ $I_D = -30A$		13		ns
Turn-on Rise Time	t_r			49		
Turn-off Delay Time	$t_{d(OFF)}$			329		
Turn-off Fall Time	t_f			115		

Notes

a : Pulse test ; pulse width $\leq 300\mu s$, duty cycle $\leq 2\%$

b : Guaranteed by design, not subject to production testing

BRCS200P10ZC

/ Electrical Characteristic Curve

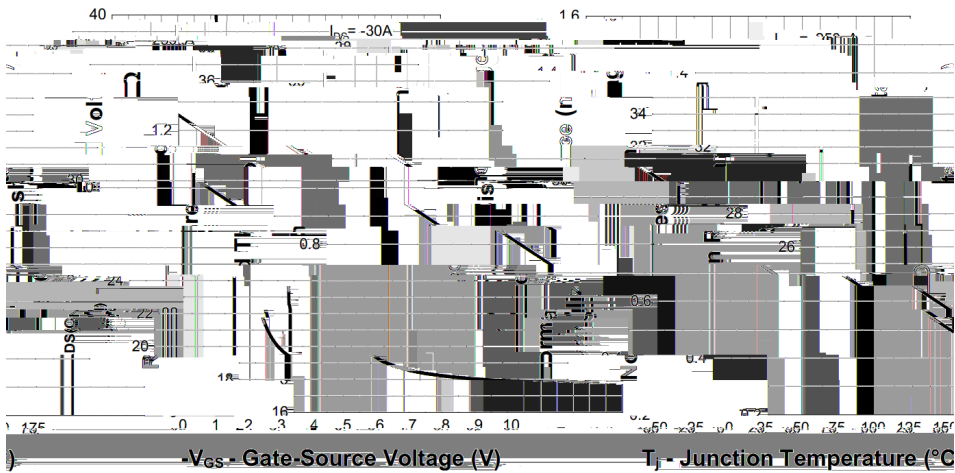
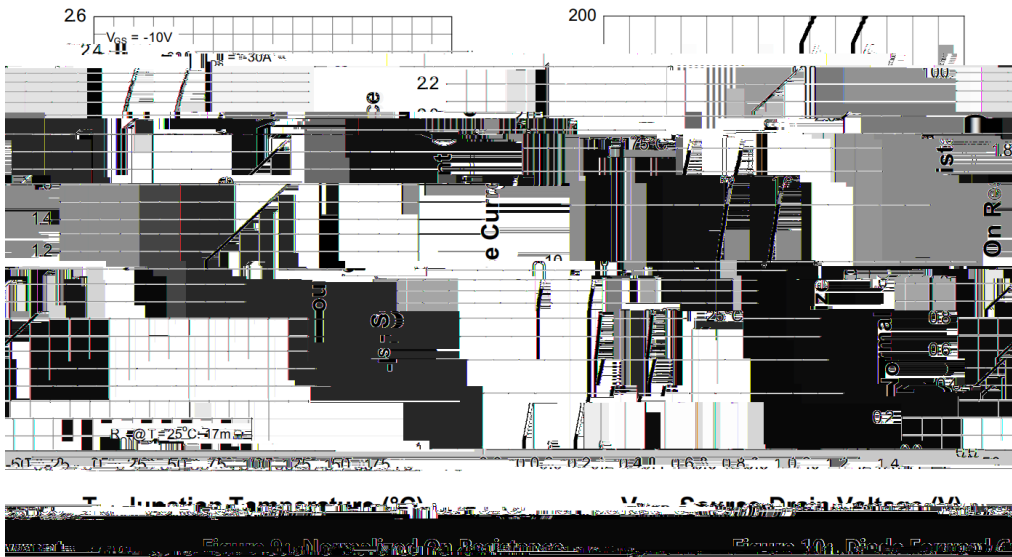


Figure 7: Transfer Characteristics

Figure 8: Normalized Threshold Voltage



BRCS200P10ZC

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

- Note:

1

150 180

60 90sec;

2

245±5

5±0.5sec;

3

2 10 /sec.

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

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

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.