

/ Descriptions

PDFN5 6A P

Dual P-CHANNEL MOSFET in a PDFN5×6A Plastic Package.

/ Features

$V_{DS}(V)=-40V$ $I_D=-20A$

$R_{DS(ON)}@-10V<35\text{ m}\Omega$ (Typ. $33\text{ m}\Omega$)

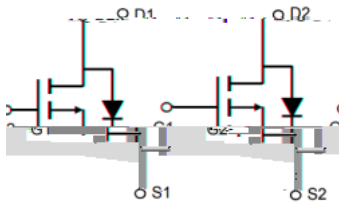
$R_{DS(ON)}@-4.5V<60\text{ m}\Omega$ (Typ. $40\text{ m}\Omega$)

HF Product.

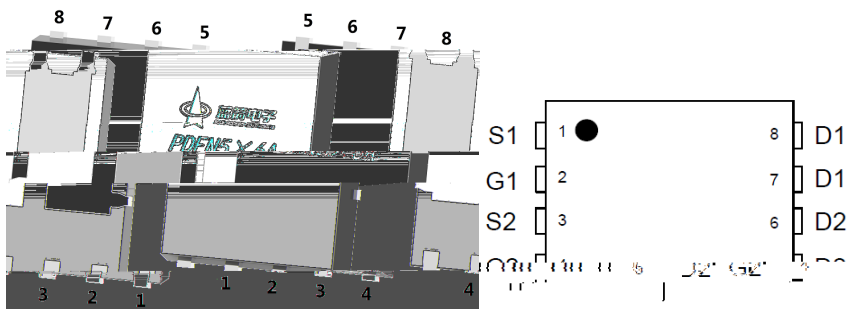
/ Applications

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

/ Equivalent Circuit



/ Pinning



/ Marking

See Marking Instructions.

BRCS350P04YM

Rev.A Oct.-2024

Parameter		Symbol	Rating	Unit
Drain-Source Voltage		V_{DS}	-40	V
Drain Current		$I_D(T_c=25^\circ\text{C})$	-20	A
Drain Current - Pulsed		I_{DM}	-46	A
Gate-Source Voltage		V_{GS}	± 20	V
Avalanche Current		I_{AS}	13	A
Single Pulsed Avalanche Energy $\sim L=0.5\text{mH}$		E_{AS}	54	mJ
Power Dissipation		P_D	25	W
Storage Temperature Range		T_{stg}	-55 ~ 150	
Thermal Resistance-Junction to Ambient	$t \leq 10\text{s}$	R_{JA}	40	/W
	Steady-State		62.5	
Thermal Resistance-Junction to Case	Steady-State	R_{JC}	5	/W

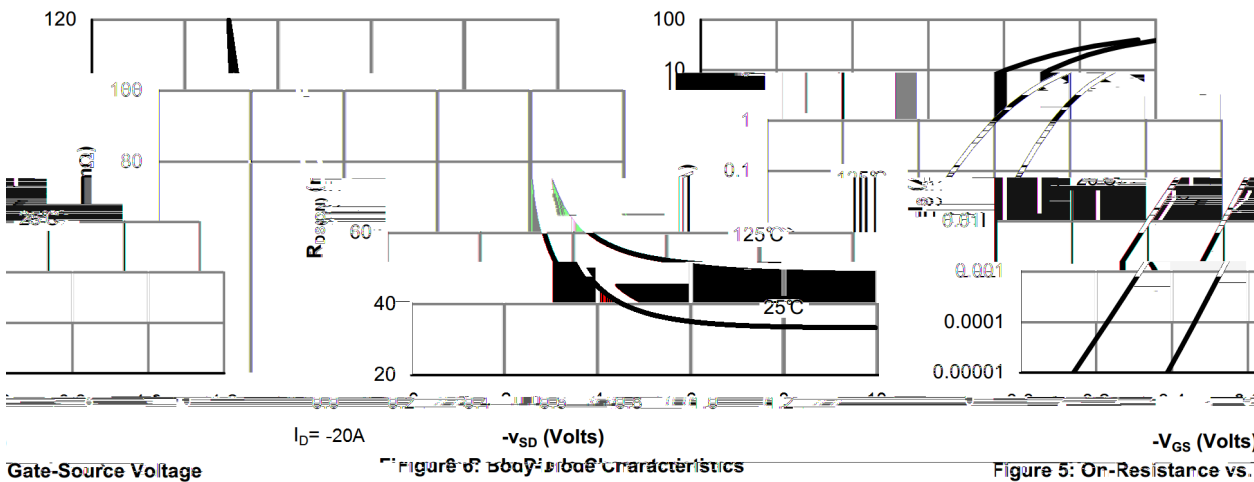
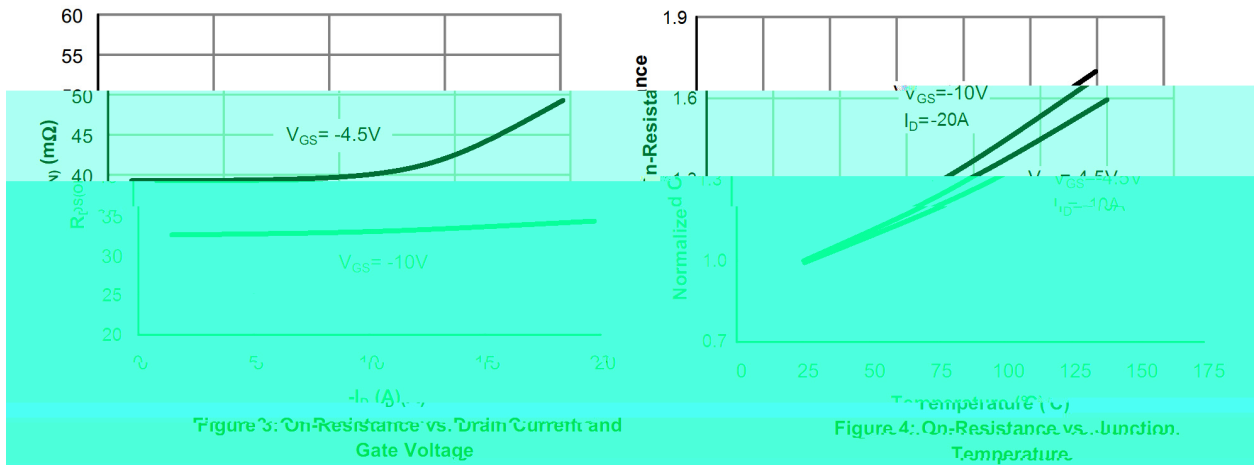
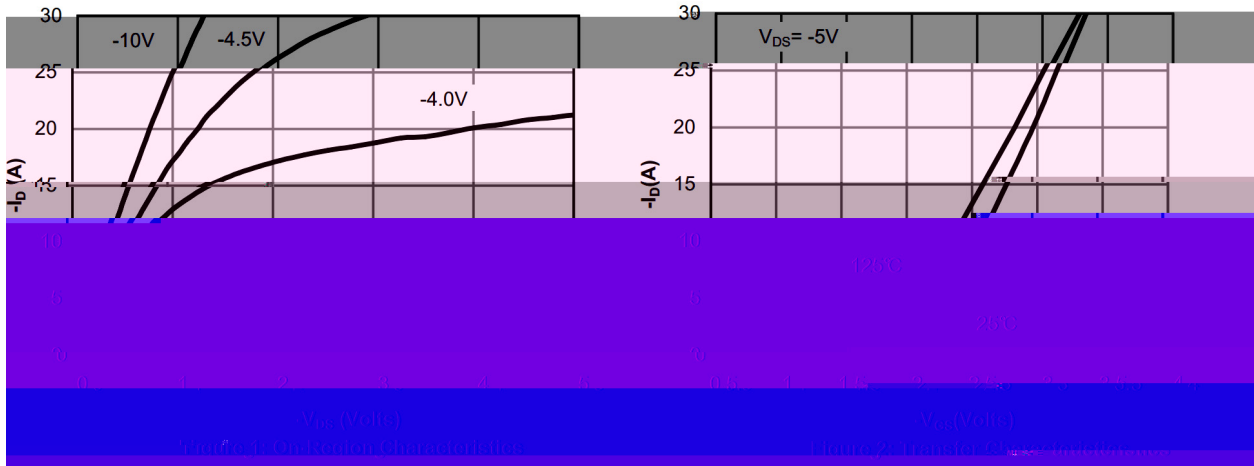
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	BV_{DS}	$V_{GS}=0V$ $I_D=-250\text{A}$	-40	-46		V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS}=-40V$ $V_{GS}=0V$			1.0	A
Gate-Body Leakage Current Forward	I_{GSS}	$V_{GS}=\pm 20V$ $V_{DS}=0V$			± 0.1	A
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS}=V_{GS}$ $I_D=-250\text{A}$	-1.0	-1.4	-2.5	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	$V_{GS}=-10V$ $I_D=-20A$		33	35	m
		$V_{GS}=-4.5V$ $I_D=-10A$		40	60	
Drain-Source Diode Forward Voltage	V_{SD}	$V_{GS}=0V$ $I_S=-1A$			-1.2	V
Gate resistance	R_g	$V_{GS}=0V$ $V_{DS}=0V$, $f=1\text{MHz}$		9.5		
Input Capacitance	C_{iss}	$V_{DS}=-25V$ $V_{GS}=0V$ $f=1.0\text{MHz}$		1500		pF
Output Capacitance	C_{oss}			620		

Reverse Transfer Cap

/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Turn-On Delay Time	$t_{d(on)}$	$V_{GS}=-10V$ $V_{DS}=-20V$ $R_L=1.6\ \Omega$ $R_{GEN}=3\ \Omega$		6.5		ns
Turn-On Rise Time	t_r			9.2		
Turn-Off Delay Time	$t_{d(off)}$			52		
Turn-Off Fall Time	t_f			50.8		

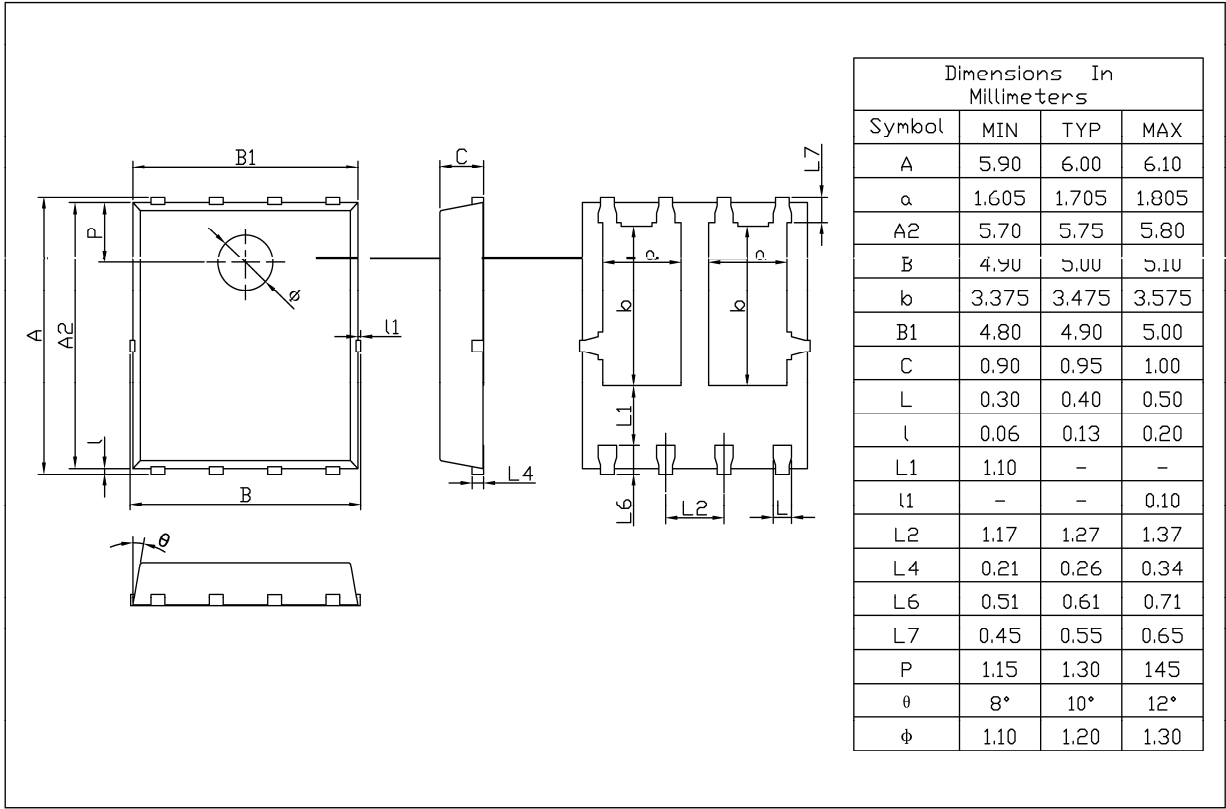
/ Electrical Characteristic Curve



/ Package Dimensions

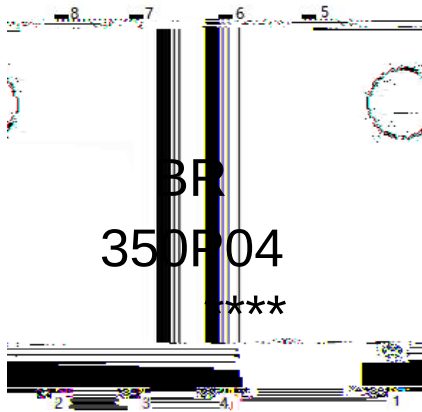
PDFN5 X6A

Unit:mm



Rev.01 202209

/ Marking Instructions



350P04

Note

BR	Company Code
350P04	Product Type Code
****:	Lot No. Code, code change with Lot No

