

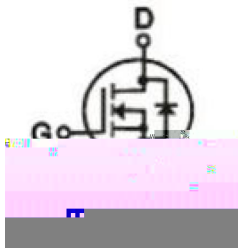
修订记录 / Revised record

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

Low $R_{DS(ON)}$ to minimize conductive loss, low Gate Charge for fast switching, Low Thermal resistance, HF Product.

LED

For boost converters and synchronous rectifiers for consumer, telecom, industrial power supplies and LED backlighting.



极限参数 / Absolute Maximum Ratings($T_a=25^{\circ}\text{C}$)

Parameter		Symbol	Rating	Unit
Drain-Source Voltage		V_{DS}	100	V
Drain Current - Continuous		I_D	50	A
Drain Current – Pulsed		I_{DM}	200	A
Gate-Source Voltage		V_{GS}	± 20	V
Power Dissipation		$P_D(T_c=25^{\circ}\text{C})$	48	W
Single Pulse Avalanche Energy(L=0.5mH)		E_{AS}	119	mJ
Avalanche Current(L=0.5mH)		I_{AS}	18.5	A
Junction and Storage Temperature Range		T_j, T_{stg}	-55 to 150	$^{\circ}\text{C}$
Thermal resistance, junction - ambient	$t \leq 10\text{s}$	$R_{\theta JA}$	25	$^{\circ}\text{C/W}$
	Steady-State		55	
Thermal resistance, junction - case	Steady-State	$R_{\theta JC}$	2.6	

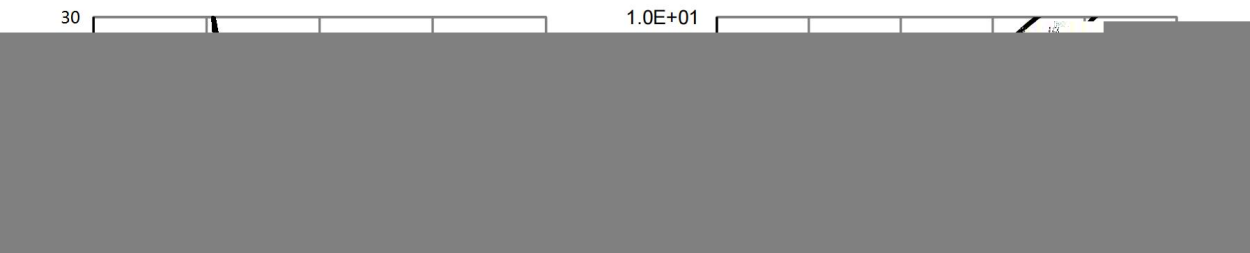
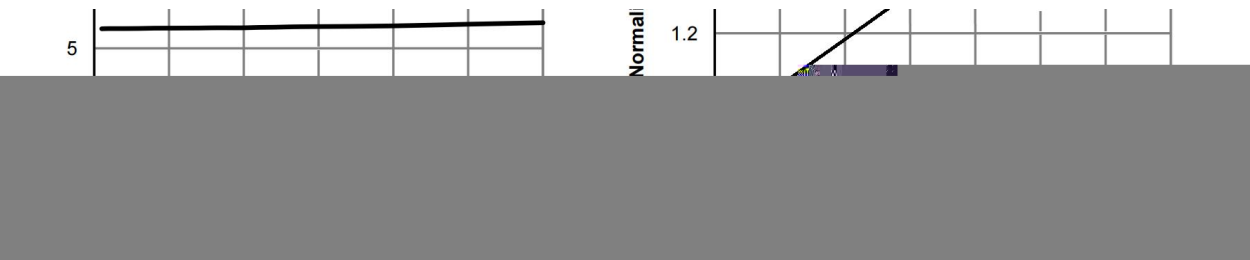
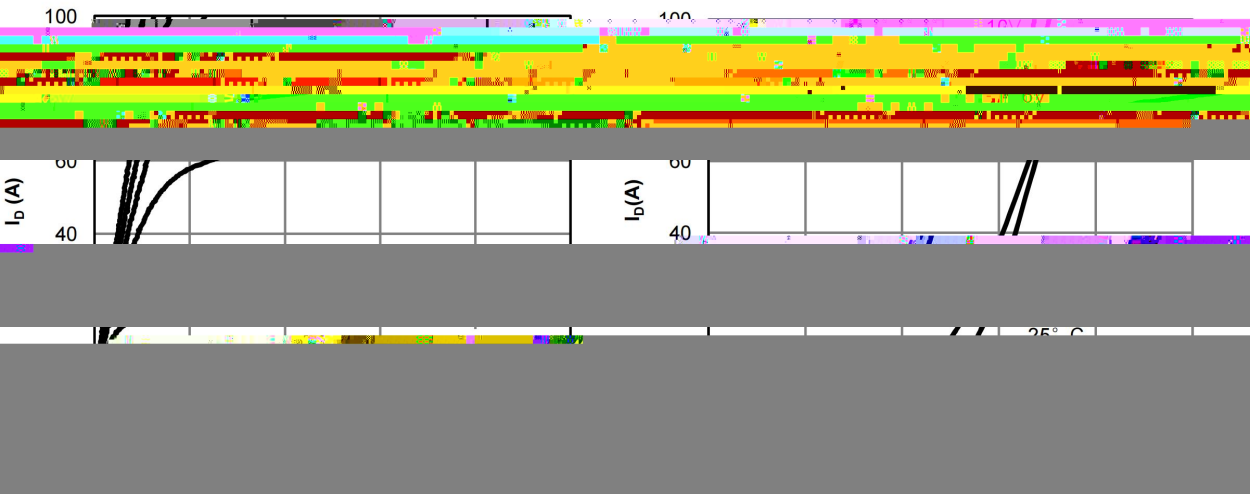
电性能参数 / Electrical Characteristics($T_a=25^{\circ}\text{C}$)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	BV_{DSS}	$I_D=250\mu\text{A}, V_{GS}=0\text{V}$	100	109		V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS}=100\text{V}, V_{GS}=0\text{V}$			1.0	μA
Gate-Body leakage current	I_{GSS}	$V_{DS}=0\text{V}, V_{GS}=\pm 20\text{V}$			± 100	nA
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS}=V_{GS}, I_D=250\mu\text{A}$	2	2.9	4	V
Static Drain-Source On-Resistance	$R_{DS(ON)}$	$V_{GS}=10\text{V}, I_D=30\text{A}$		6.7	8	m Ω
Input Capacitance	C_{iss}	$V_{DS}=25\text{V}, V_{GS}=0\text{V}$ $f=1.0\text{MHz}$		2500		pF
Output Capacitance	C_{oss}			1250		
Reverse Transfer Capacitance	C_{rss}			110		
Gate resistance	R_g	$V_{GS}=0\text{V}, V_{DS}=0\text{V}$ $f=1\text{MHz}$		3.1		Ω
Total Gate Charge	Q_g	$V_{GS}=10\text{V}, V_{DS}=50\text{V}$ $I_D=20\text{A}$		25		nC
Gate Source Charge	Q_{gs}			6		
Gate Drain Charge	Q_{gd}			3.5		

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Turn-On Delay Time	$t_{D(on)}$	$V_{GS}=10V, V_{DS}=50V,$ $R_L=2.5\Omega, R_{GEN}=3\Omega$		8.5		ns
Turn-On Rise Time	t_r			3		
Turn-Off Delay Time	$t_{D(off)}$			23		
Turn-Off Fall Time	t_f			3.5		

电参数曲线图 / Electrical Characteristic Curve



电参数曲线图 / Electrical Characteristic Curve

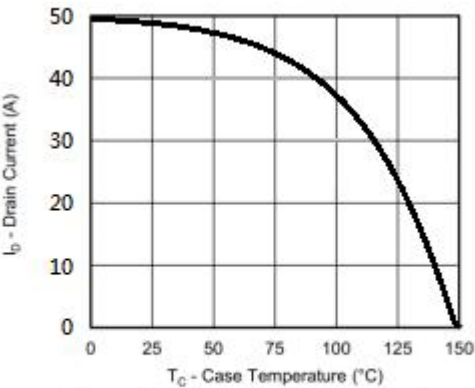
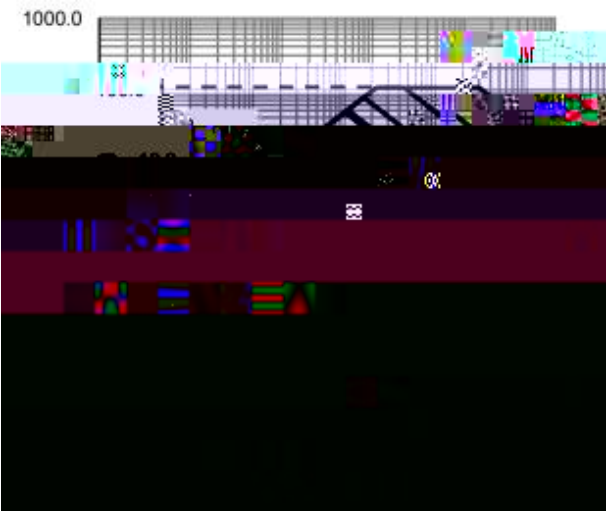
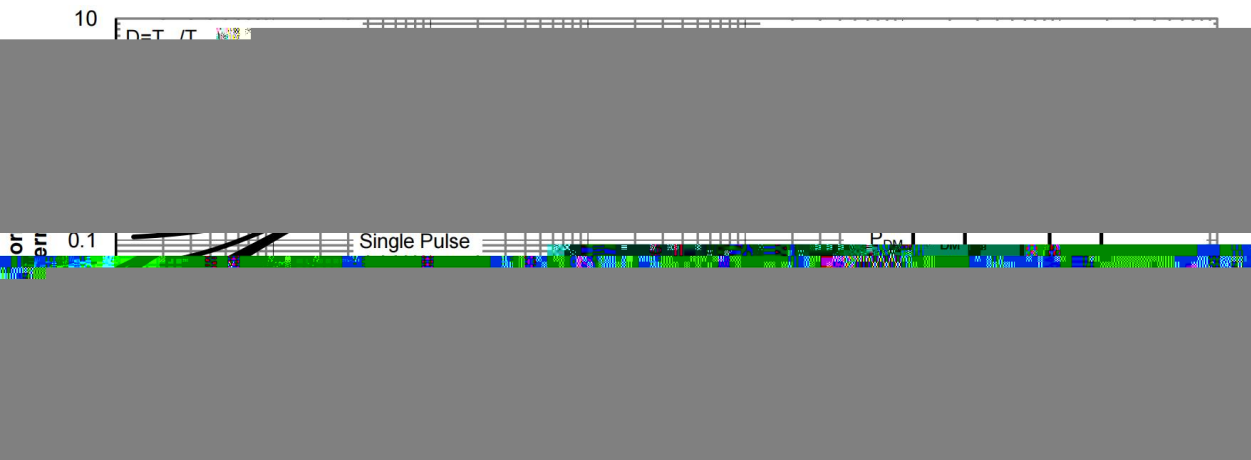
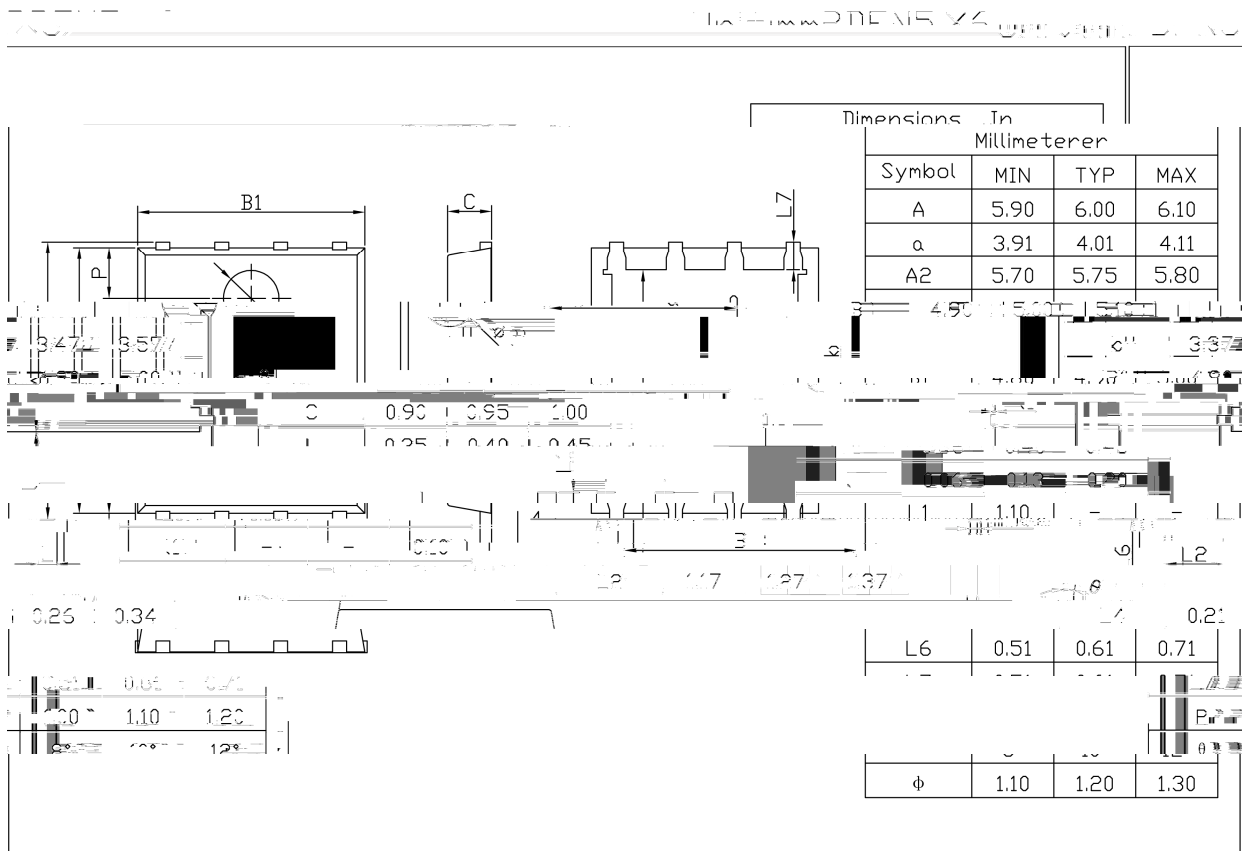


Figure10. Maximum Continuous Drain Current vs Case Temperature

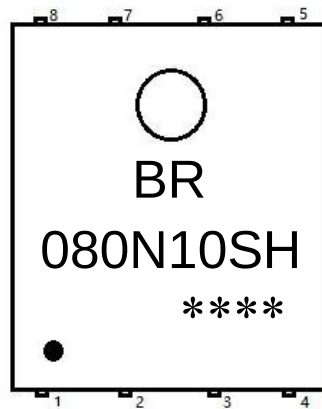


外形尺寸图 / Package Dimensions



Rev.00 201812

印章说明 / Marking Instructions



BR

080N10SH

Note

BR Company Code

080N10SH Product Type

****: 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)
