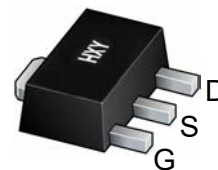




概述和特点

- 开关速度快
- 并联使用
- 驱动电路简单
- 封装外型：SOT-89



SOT-89

极限参数（除另外注明， $T_a=25^{\circ}\text{C}$ ）

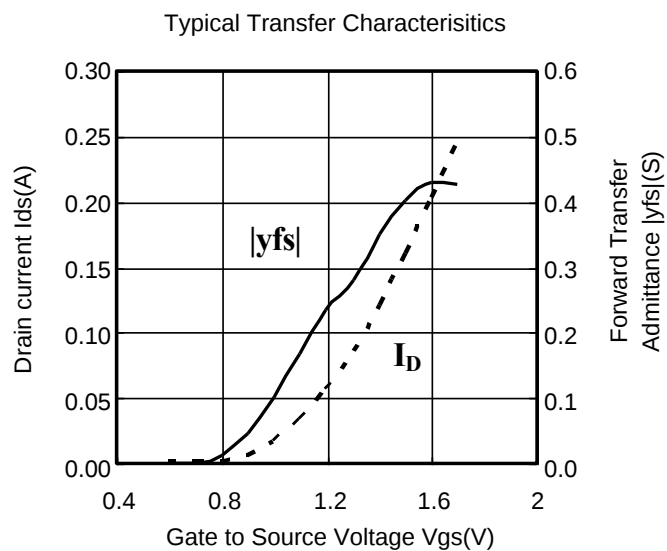
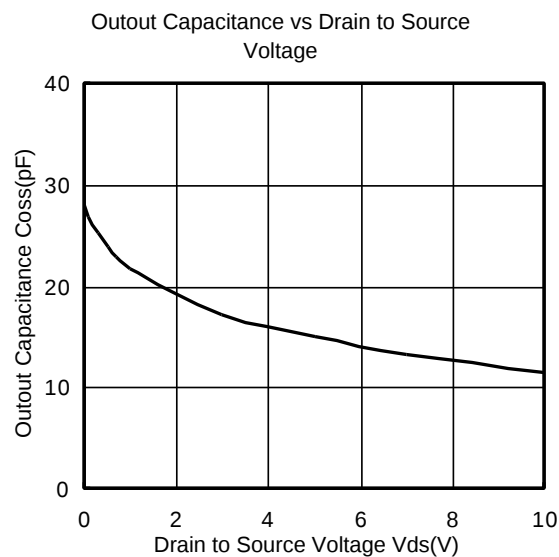
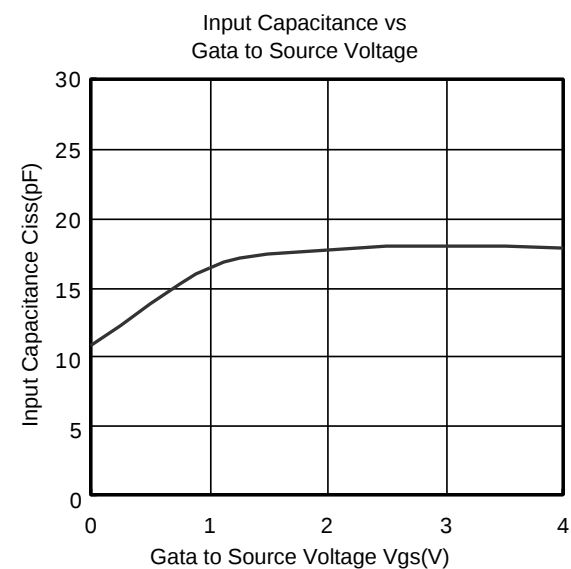
参数	符号	额定值	单位
漏源电压	V_{DS}	12	V
漏极电流	I_D	0.5	A
栅源电压	V_{GS}	5	V
耗散功率	P_{tot}	3.0	W
结温	T_j	150	$^{\circ}\text{C}$
贮存温度	T_{stg}	-55~150	$^{\circ}\text{C}$

电参数（除另外注明， $T_a=25^{\circ}\text{C}$ ）

参数	符号	测试条件	最小值	典型值	最大值	单位
开启电压	$V_{GS(th)}$	$V_{DS}=5\text{V}, I_D=0.5\text{mA}$	0.6	0.8	1.2	V
漏源泄漏电流	I_{DSS}	$V_{DS}=10\text{V}, V_{GS}=0\text{V}$			10	μA
栅源泄漏电流	I_{GSS}	$V_{GS}=5\text{V}$			5	μA
工作电压	V_{DS}	$f=450\text{MHz}, I_{DS}=100\text{mA}, P_i=15\text{dBmW}$		5	8.4	V
栅极工作电压	$V_{GS(TYP)}$	$V_{DS}=5\text{V}, f=500\text{MHz}$ $I_{DS}=100\text{mA}, P_i=15\text{dBmW}$	0.8	1.3	1.5	V
输出功率	P_O	$V_{DS}=5\text{V}, f=450\text{MHz}$ $I_{DS}=100\text{mA}, V_{GS(TYP)}=1.30\text{V},$ $P_i=15\text{dBmW}$	27.5	28.5		dBmW
转换效率	η_D		45	55		%
输出功率	P_O		0.56	0.71		W
功率增益	G_P		12.5	13.5		dB

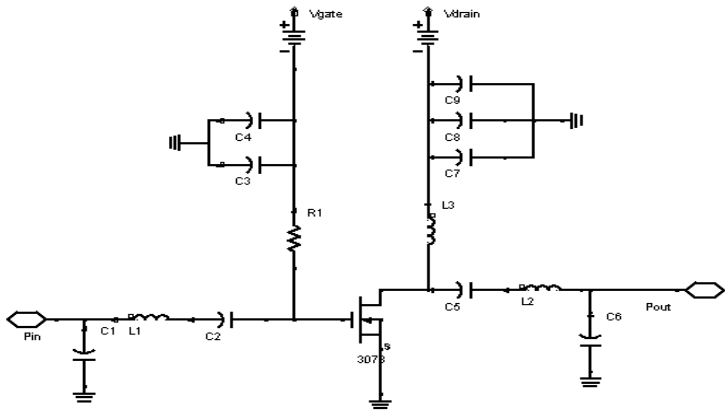


特征曲线





应用线路图及射频参数

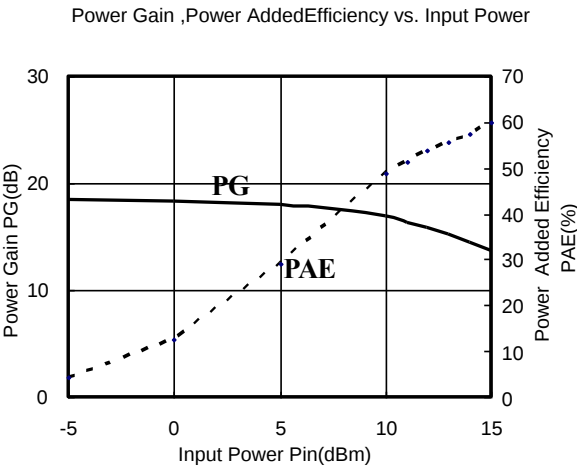
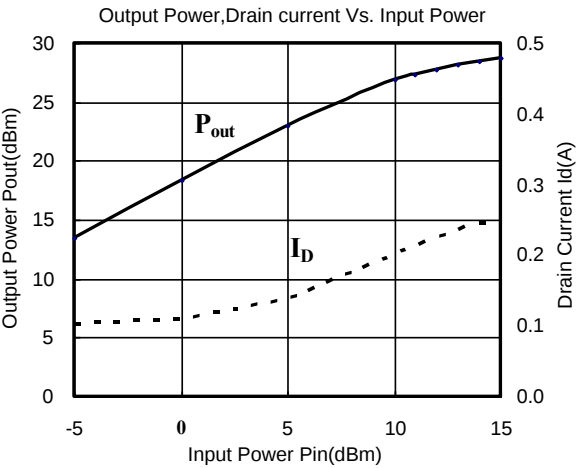


400MHz~470MHz 应用线路图

元件值：

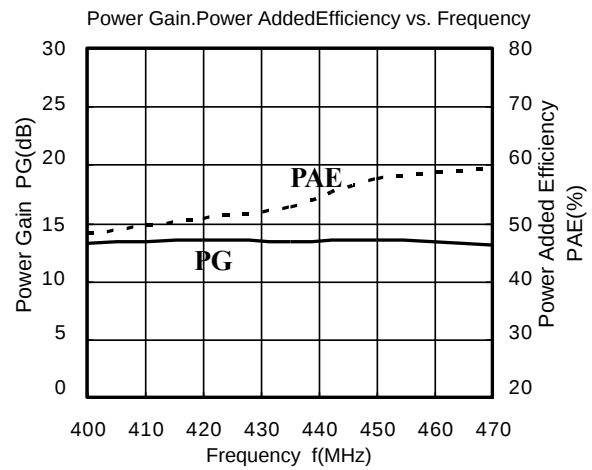
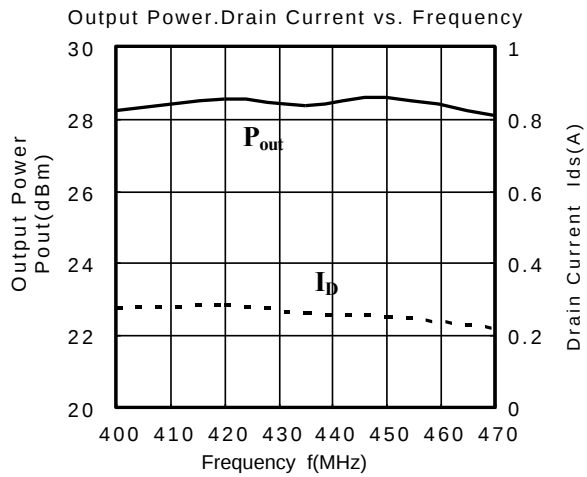
元件名称	元件值	单位	元件名称	元件值	单位
C1	10	pF	C9	4.7	μF
C2,C5	100	pF	R1	360	Ω
C3,C7	1000	pF	L1	10	nH
C4,C8	10000	pF	L2	3.3	nH
C6	12	pF	L3	5 圈线圈，Φ=2mm	

$f=450\text{MHz}$, $V_{DS}=5\text{V}$, $I_{DQ}=100\text{mA}$, $V_{GS}(\text{TYP})=1.30\text{V}$

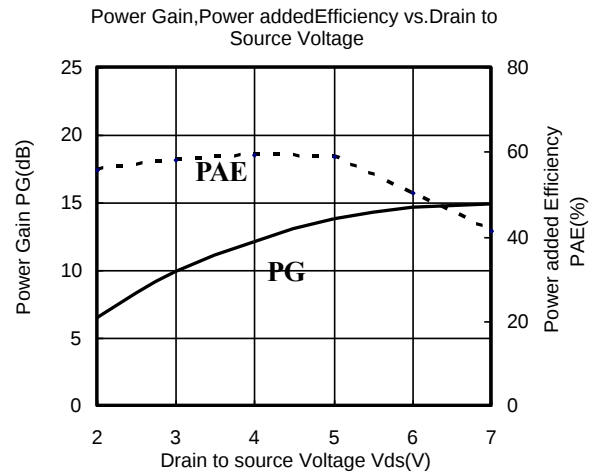
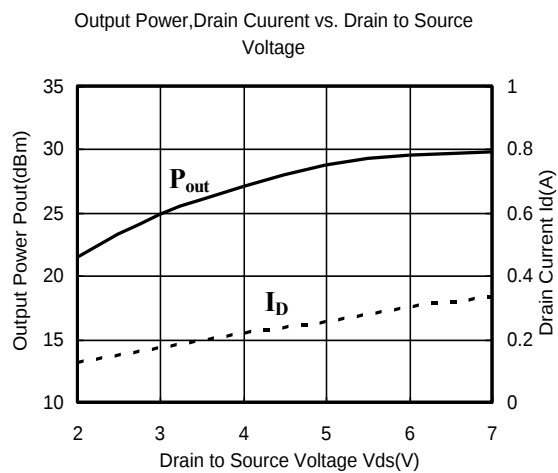




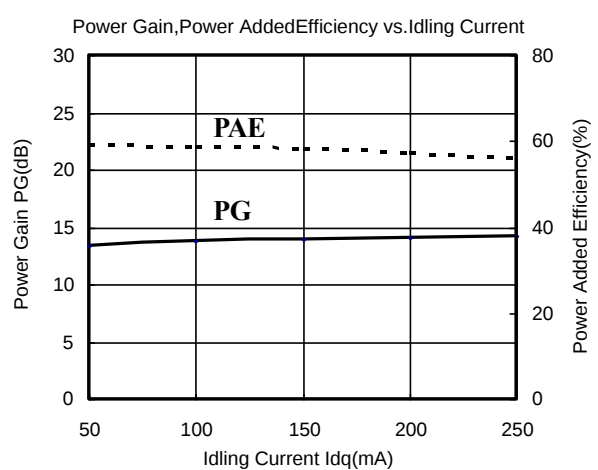
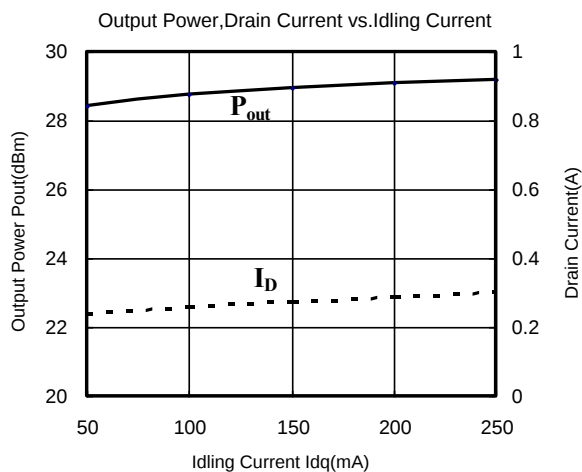
$V_{DS}=5V$, $I_{DQ}=100mA$, $P_{in}=15dBm$



$f=450MHz$, $I_{DQ}=100mA$, $P_{in}=15dBm$

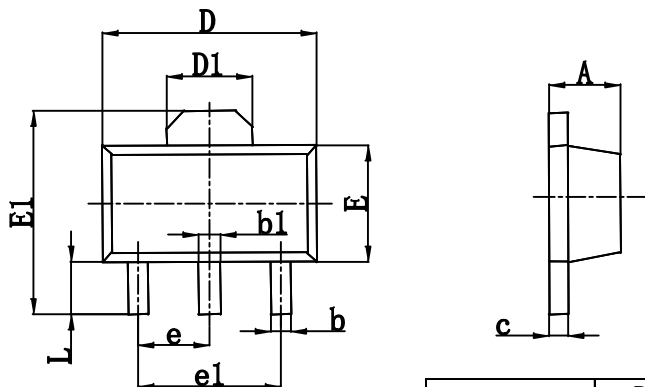


$f=450MHz$, $V_{ds}=5V$, $P_{in}=15dBm$





SOT-89 封装外形尺寸



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.400	1.600	0.055	0.063
b	0.320	0.520	0.013	0.020
b1	0.400	0.580	0.016	0.023
c	0.350	0.440	0.014	0.017
D	4.400	4.600	0.173	0.181
D1	1.550 REF.		0.061 REF.	
E	2.300	2.600	0.091	0.102
E1	3.940	4.250	0.155	0.167
e	1.500 TYP.		0.060 TYP.	
e1	3.000 TYP.		0.118 TYP.	
L	0.900	1.200	0.035	0.047



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