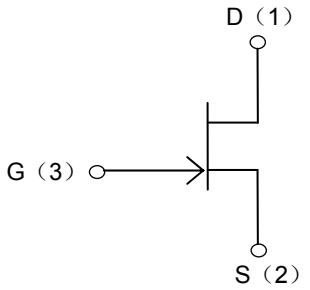
Description

- Especially suited for use in Electret Condenser Microphone
- Ultra-small package permitting PD030G applied sets to be made smaller and slimmer
- Excellent voltage characteristics
- Excellent transient characteristics



Mechanical Characteristics

- Lead finish:100% matte Sn(Tin)
- Mounting position: Any
- Qualified max reflow temperature:260℃
- Device meets MSL 1 requirements
- Pure tin plating: 7 ~ 17 um
- Pin flatness：≤3mil

Absolute maximum ratings@25℃

Parameter	Symbol	Ratings	Units
Gate to Drain Voltage	V_{GDO}	-20	V
Gate Current	I_G	10	mA
Drain Current	I_D	1	mA
Allowable Power Dissipation	P_D	100	mW
Junction Temperature	T_j	150	°C
Storage Temperature	T_{stg}	-55 to 150	°C

Electrical characteristics per line@25℃(unless otherwise specified)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Gate-to-Drain Breakdown Voltage	$V_{(BR)GDO}$	I_G =-100μA	-20		-	V
Cutoff Voltage	$V_{GS(off)}$	V_{DS} =3V,I_D=1uA	-0.2	-0.6	-1.2	V
Zero-Gate Voltage Drain Current	I_{DSS}	V_{DS} =3V,V_{GS}=0	40	-	500	uA
Forward Transfer Admittance	|yfs|	V_{DS} =3V, V_{GS}=0,f=1KHz	0.4	1.2		ms
Input Capacitance	C_{ISS}	V_{DS} =3V, V_{GS}=0,f=1KHz	-	3.5		pF
Reverse Transfer Capacitance	C_{RSS}	V_{DS} =3V, V_{GS}=0,f=1KHz	-	0.65		pF

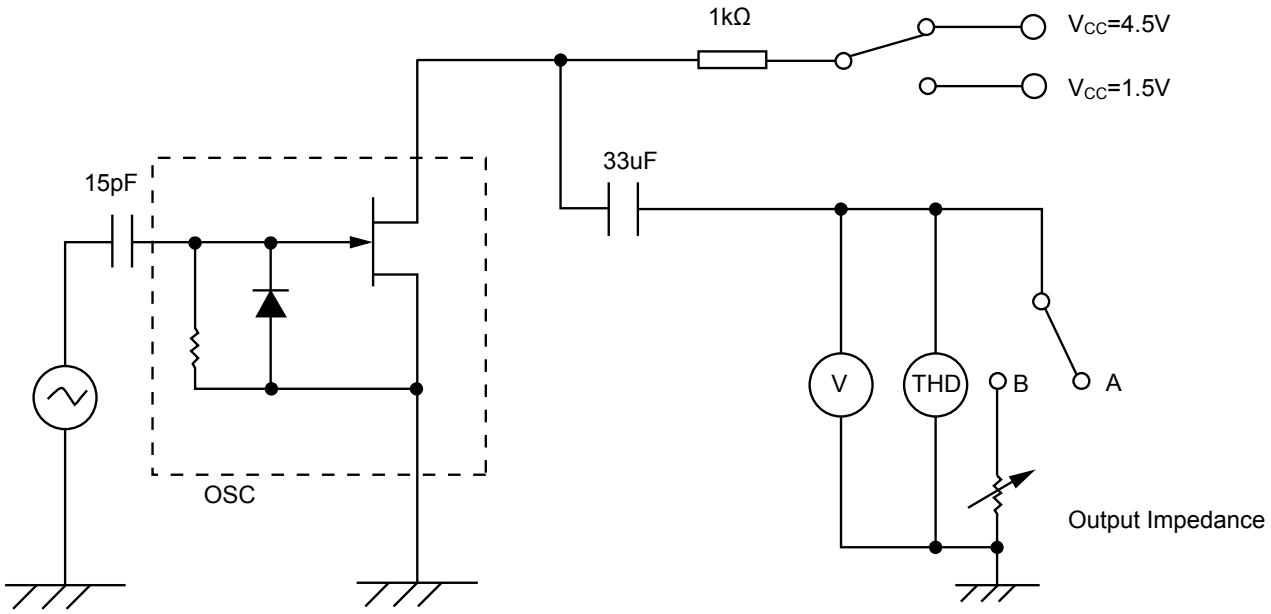
The PD030G is classified by IDSS as follows : (Units:uA)						
Rank	E31	E32	E4	E51	E53	E6
I_{DSS}	70~100	100~150	150~200	200~300	300~360	360~480

Electrical characteristics per line@25℃(unless otherwise specified)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
T_A=25℃.V_{CC}=4.5V,R_L=1kΩ,C_{in}=15pF.						
Voltage Gain	G_V	V_{IN} =10mV,f=1KHz		-3.0	-	dB
Reduced Voltage Characteristics	$\triangle G_{VV}$	V_{IN} =10mV,f=1KHz,V_{CC}=4.5→1.5V		-1.2	-3.5	dB
Frequency Characteristics	$\triangle G_{Vf}$	f=1KHz to 110Hz			-1.0	dB
Input Resistance	Z_{IN}	f=1KHz	25			MΩ
Output Resistance	Z_O	f=1KHz		1000		Ω
Total Harmonic Distortion	T_{HD}	V_{IN} =30mV,f=1KHz		1.0		%
Output Noise Voltage	V_{NO}				-110	dB

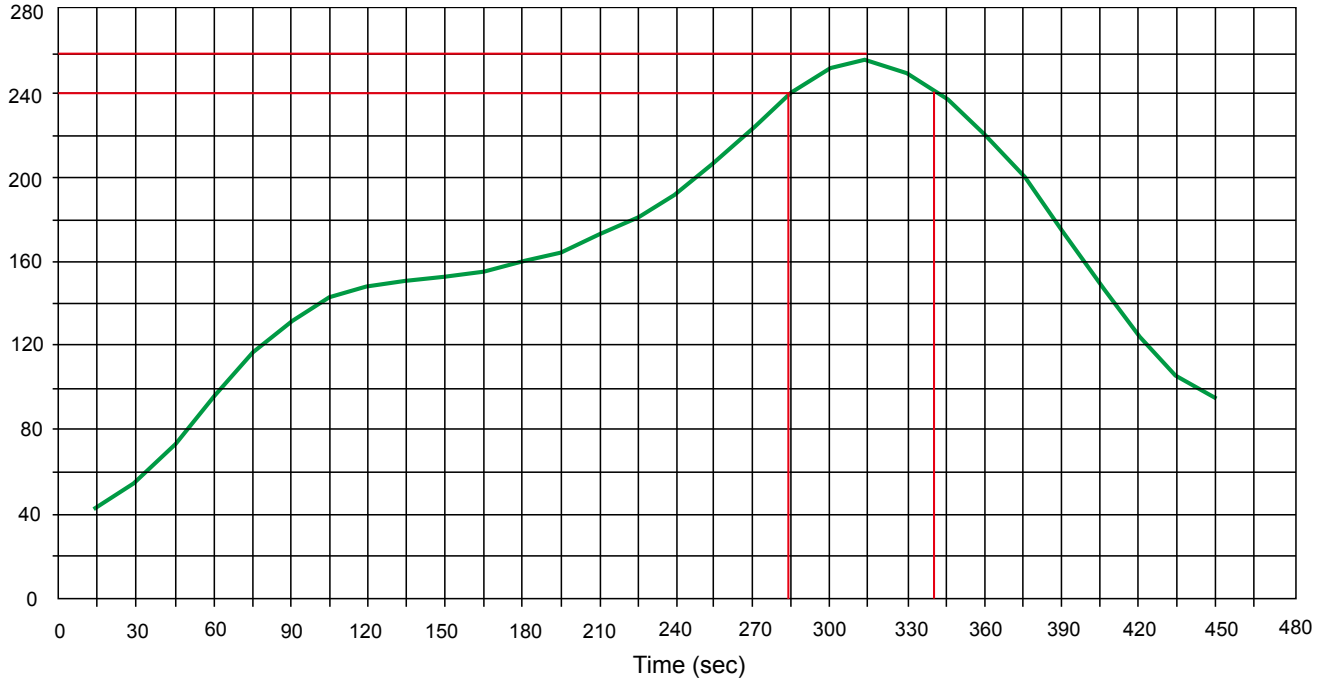
Test Circuit

Voltage gain
Frequency Characteristics
Distortion
Reduced Voltage Characteristics

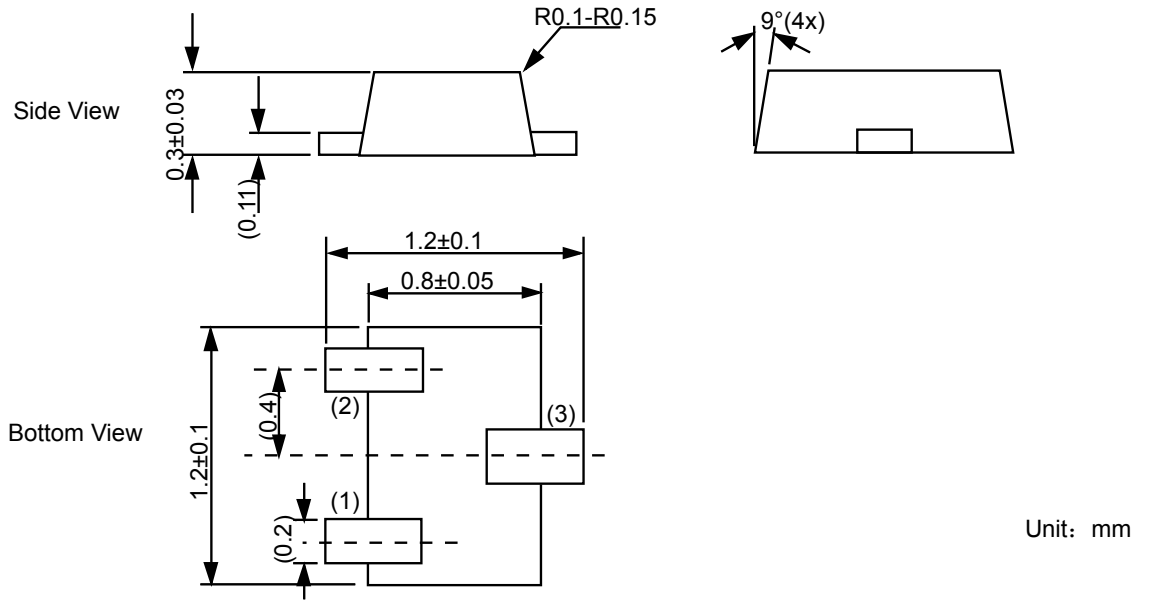


Solder Reflow Recommendation

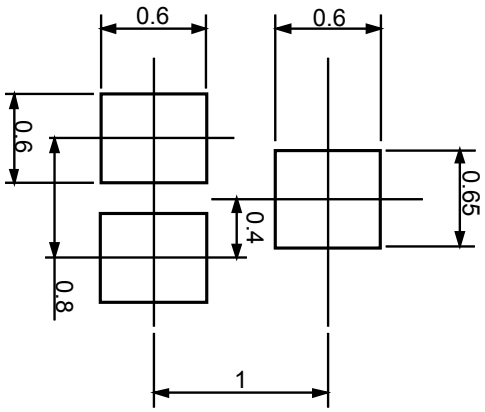
Peak Temp=257℃, Ramp Rate=0.802deg. ℃/sec



Product dimension (SOT-723)



Unit：mm



Unit：mm

Ordering information

Device	Package	Shipping
PD030G	SOT-723 (Pb-Free)	10000 / Tape & Reel

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