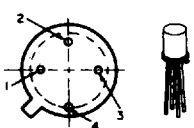



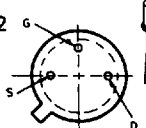
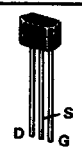


Field Effect Transistors Maximum Ratings at $T_A = 25^\circ\text{C}$ (Observe MOS Handling) ▲

ECG Type	Description and Application	Trans-conductance gfs Typ μmhos	Gate to Source Cutoff Voltage V_{GS} (off) Max V	Zero-Gate Voltage Drain Current I_{DSS} mA Min - Max	Gate To Source Breakdown Voltage BV_{GSS} Min V	Input Cap C_{iss} Max pf	Transfer Cap C_{rss} Max pf	Device Diss. P_D Max mW	Package																																													
									Case/Fig./Basing																																													
ECG220 ▲	MOSFET, N-Ch, VHF Amp/Mix, NF 5dB Max at 200 MHz	7,500	8	5 - 25	20	7	0.35	330	TO-72 Fig. T4  <table border="1" data-bbox="1260 462 1484 672"> <thead> <tr> <th>ECG</th> <th>1</th> <th>2</th> <th>3</th> <th>4</th> </tr> </thead> <tbody> <tr> <td>220</td> <td>D</td> <td>S</td> <td>G</td> <td>CASE</td> </tr> <tr> <td>221</td> <td>D</td> <td>G2</td> <td>G1</td> <td>S,CASE</td> </tr> <tr> <td>222</td> <td>D</td> <td>G2</td> <td>G1</td> <td>S,CASE</td> </tr> <tr> <td>452</td> <td>S</td> <td>D</td> <td>G</td> <td>CASE</td> </tr> <tr> <td>454</td> <td>D</td> <td>G2</td> <td>G1</td> <td>S,CASE</td> </tr> <tr> <td>456*</td> <td>D</td> <td>S</td> <td>G</td> <td>CASE</td> </tr> <tr> <td>459*</td> <td>S</td> <td>D</td> <td>G</td> <td>CASE</td> </tr> <tr> <td>460*</td> <td>S</td> <td>G</td> <td>D</td> <td>CASE</td> </tr> </tbody> </table> <p>* D & S Interchangeable</p>	ECG	1	2	3	4	220	D	S	G	CASE	221	D	G2	G1	S,CASE	222	D	G2	G1	S,CASE	452	S	D	G	CASE	454	D	G2	G1	S,CASE	456*	D	S	G	CASE	459*	S	D	G	CASE	460*	S	G	D	CASE
ECG	1	2	3	4																																																		
220	D	S	G	CASE																																																		
221	D	G2	G1	S,CASE																																																		
222	D	G2	G1	S,CASE																																																		
452	S	D	G	CASE																																																		
454	D	G2	G1	S,CASE																																																		
456*	D	S	G	CASE																																																		
459*	S	D	G	CASE																																																		
460*	S	G	D	CASE																																																		
ECG221 ▲	Dual Gate MOSFET, N-Ch, VHF Amp/Mix, NF 5dB Max at 200 MHz	15,000	6	18 typ	20	5.5	0.03	400																																														
ECG222 ▲	Dual Gate MOSFET, N-Ch, VHF Amp/Mix, NF 6dB Max at 200 MHz Gate Protected	12,000	4	5 - 35	20	6 typ	0.03	330																																														
ECG452	JFET, N-Ch, UHF/VHF Amp, NF 4dB at 400 MHz	5,500	6	5 - 15	30	4	0.8	300																																														
ECG454 ▲	Dual Gate MOSFET, N-Ch, UHF/VHF Amp, NF 4dB at 900 MHz Gate Protected	15,000	4	6 - 30	25	---	0.03	360																																														
ECG456	JFET, N-Ch, Gen Purp Amp/Sw	3,500	6	2 - 6	30	6	2	300																																														
ECG459	JFET, N-Ch, AF Amp/Chopper/Sw	4,500	6	2 - 10	50	6	3	300																																														
ECG460	JFET, P-Ch, AF Amp	2,500	6	2 - 6	20	20	---	300																																														
ECG312	JFET, N-Ch, VHF Amp/Mix NF 4dB Max at 400 MHz	5,500	6	5 - 15	30	4.5	1.0	360	TO-92 Fig. T16  <table border="1" data-bbox="1260 819 1404 987"> <thead> <tr> <th>ECG</th> <th>1</th> <th>2</th> <th>3</th> </tr> </thead> <tbody> <tr> <td>312*</td> <td>G</td> <td>S</td> <td>D</td> </tr> <tr> <td>326*</td> <td>S</td> <td>D</td> <td>G</td> </tr> <tr> <td>461</td> <td>D</td> <td>S</td> <td>G</td> </tr> <tr> <td>457*</td> <td>D</td> <td>S</td> <td>G</td> </tr> <tr> <td>458</td> <td>D</td> <td>G</td> <td>S</td> </tr> <tr> <td>469</td> <td>D</td> <td>G</td> <td>S</td> </tr> </tbody> </table> <p>* D & S Interchangeable</p>	ECG	1	2	3	312*	G	S	D	326*	S	D	G	461	D	S	G	457*	D	S	G	458	D	G	S	469	D	G	S																	
ECG	1	2	3																																																			
312*	G	S	D																																																			
326*	S	D	G																																																			
461	D	S	G																																																			
457*	D	S	G																																																			
458	D	G	S																																																			
469	D	G	S																																																			
ECG326	JFET, P-Ch, Gen Purp AF Amp, NF 2.5dB Max at 100 Hz	3,000	7.5	2 - 9	60	7	2	310																																														
ECG451	JFET, N-Ch, UHF/VHF Amp, NF 4dB at 400 MHz	4,000	4	4 - 10	25	5	1.2	310																																														
ECG457	JFET, N-Ch, Gen Purp Amp/Sw	3,000	5	1 - 5	25	6	3	310																																														
ECG458	JFET, N-Ch, Gen Purp, Lo Noise Audio Amp	12,000	1.5	1 - 3	50	13 (typ)	2.6 (typ)	250																																														
ECG489	JFET, P-Ch, Gen Purp, Chopper	11,000	2	2 - 15	30	32	8	360																																														
ECG455 ▲	Dual Gate MOSFET, N-Ch, TV UHF RF Amp, 900 MHz Gate Protected	22,000	$G_1 = 2$ $G_2 = 0.7$	0.5 - 8 ($V_{G2S} = 4V$)	20 (BV_{DSX})	3.5	0.03	200	RF-15A Fig. T49-1 																																													
ECG461	Matched Dual JFET, N-Ch, DC Amp/Sampler/Chopper	3,500	4.5	0.5 - 8	50	6	2	400	TO-71 Fig. T3  1. S1 4. Blank 7. G2 2. D1 5. S2 8. Blank 3. G1 6. D2																																													
ECG462 ▲	MOSFET, N-Ch, VHF Amp/Mix, NF 5dB at 200 MHz	2,250	7	2 - 6	20	8	0.8	300	TO-18 Fig. T2 																																													
ECG453	JFET, N-Ch, VHF/FM Amp, NF 3.5dB at 100 MHz	7,000	---	12 - 24	18	---	0.65	200	SP-92 Fig. T13-1*  * TO-92 Alt. Fig. T16																																													

▲ Refer to MOSFET Handling Precautions - Page 1-34

Package Outlines - See Page 1-91

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