

# Transistors (cont'd) (Maximum Ratings at $T_C = 25^\circ\text{C}$ Unless Otherwise Noted)

ECG Type	Description and Application	Collector To Base Volts $BV_{CBO}$	Collector To Emitter Volts $BV_{CEO}$	Base to Emitter Volts $BV_{EBO}$	Max. Collector Current $I_C$ Amps	Max. Device Diss. $P_D$ Watts	Freq. in MHz $f_t$	Current Gain $h_{FE}$	Package	
									Case	Fig. No.
ECG193A	PNP-Si, AF PO (Compl to ECG192A)	70	70 (CES)	5	.5	.6 ( $T_A = 25^\circ\text{C}$ )	120	120 min	T-16HS	T22*
ECG194	NPN-Si, Gen Purp HV Amp, Hi Speed Sw	180	160	4	.6	.350 ( $T_A = 25^\circ\text{C}$ )	100	100 typ	TO-92	T16
ECG195A	NPN-Si, RF Pwr Amp/Driver ( $P_O$ 3.5 W min, 50 MHz, 12 V)	70	70 (CER)	4	1.5	8	150	30 min	TO-39	T6
ECG196	NPN-Si, AF Pwr Output (Compl to ECG197)	90	80 (CER)	5	7	50 ( $T_C = 25^\circ\text{C}$ ) 1.8 ( $T_A = 25^\circ\text{C}$ )	.800 min	20 min	TO-220	T41
ECG197	PNP-Si, AF Pwr Output (Compl to ECG196)	90	80 (CER)	5	7	50 ( $T_C = 25^\circ\text{C}$ ) 1.8 ( $T_A = 25^\circ\text{C}$ )	.800 min	20 min	TO-220	T41
ECG198	NPN-Si, HV AF, Sw	500	500 (CES)	5	1	40 ( $T_C = 25^\circ\text{C}$ ) 2 ( $T_A = 25^\circ\text{C}$ )	20	80 typ	TO-220	T41
ECG199	NPN-Si, Lo Noise Hi Gain Preamp	70	50	5	.1	.360 ( $T_A = 25^\circ\text{C}$ )	90 min	400	TO-92	T16*
ECG210	NPN-Si, AF Output, Sw (Compl to ECG211)	90	75	5	1	6.25 ( $T_C = 25^\circ\text{C}$ ) 1.33 ( $T_A = 50^\circ\text{C}$ )	200	120 min	TO-202	T38
ECG211	PNP, Si, AF Output, Sw (Compl to ECG210)	90	75	5	1	6.25 ( $T_C = 25^\circ\text{C}$ ) 1.33 ( $T_A = 25^\circ\text{C}$ )	200	120 min	TO-202	T38
ECG213	PNP-Ge, Hi Current/Power	75	65	40	30	170	.270	80 typ	TO-36	T29
ECG214	NPN-Si, Darlington Dr, Sw, Series Pass, $t_f = 1.8 \mu\text{sec}$ typ	70	60	6	10	60	---	2000 min	TO-3PJ	T48-1
ECG215	NPN-Si, Darlington Dr, Sw, Series Pass, $t_f = 1.6 \mu\text{sec}$ typ	110	100	6	8	60	---	1500 min	TO-3PJ	T48-1
ECG216	NPN-Si, Hi Speed Sw, Core Driver, $t_d = 5 \text{ ns}$ , $t_r = 15 \text{ ns}$ , $t_s = 35 \text{ ns}$ , $t_f = 20 \text{ ns}$ typ	80	50	6	1.5	1	300	60 min	TO-237	T17
ECG217	PNP-Si, Hi Speed Sw, Amp, $t_d = 10 \text{ ns}$ , $t_r = 30 \text{ ns}$ , $t_s = 60 \text{ ns}$ , $t_f = 30 \text{ ns}$ max	40	40	5	1	1	175	40 min	TO-237	T17
ECG218	PNP-Si, AF Pwr Output	90	80	7	3	25	3 min	20 min	TO-66	T25
ECG219 ECG219MCP	PNP-Si, AF Output, Sw (Compl to ECG130 Matched Compl Pair-Contains one each ECG130 (NPN) and ECG219 (PNP))	100	70 (CER)	7	15	150	4 min	20 min	TO-3	T28
ECG220 thru ECG222	See FET Selector Guide Page 1-65	---	---	---	---	---	---	---	---	---
ECG224	NPN-Si, Final RF Pwr Output ( $P_O$ 4 W, 50 MHz)	60	60 (CEV)	2.5	2	10	200	60 typ	TO-39F	T23
ECG225	NPN-Si, AF Video & Sw	450	350	7	1	10	15	40 min	TO-39F	T23
ECG226 ECG226MP*	PNP-Ge, AF Pwr Output	35	35 (CER)	6	2	12	.450	125 typ	TC-9A	T26
ECG227	NPN-Si, HV Amp, Video Output	300	300	7	.1	1	50	40 min	TO-237	T17
ECG228A	NPN-Si, Hi Speed Sw, Linear Amp, AF/Video Output	450	350	7	1	10 ( $T_C = 25^\circ\text{C}$ ) 1.75 ( $T_A = 25^\circ\text{C}$ )	15	40 typ	TO-202M	T39

Notes: \* MP - Matched pair

# Frequency at which common emitter current gain is 70.0% of low frequency gain

• When alternate packages are shown it indicates a change is in progress. Although only one package is available both packages will be shown as long as the obsolete

Package Outlines - See Page 1-91