

RF/Microwave Devices

First Generation RF Wideband Transistors (f_T to 3.5 GHz)

f_T/f_C Curve	Polarity	metal can		plastic		ceramic SOT-122E	surface mount				
		TO-39	TO-72	TO-92	SOT-37		SOT-23	SOT-89	SOT-143*	SOT-223	SOT-323
(1)	NPN				BFT24		BFT25				
(2)	NPN		BFY90	BF689K BF763	BFW92		BFS17				BFS17W
(3)	NPN				BFW92A		BF517A		BFG17A		
(4)	NPN		BFW30		BFW93		BFR53				
(5)	NPN	BFW16A BFW17A						BFQ17		BFG16A	
(6)	NPN	BFR95				BFR94A					
(18)	NPN			BF748			BF547 BF747				BF547W BF747W

Second Generation RF Wideband Transistors (f_T to 6 GHz)

f_T/f_C Curve	Polarity	metal can TO-72	plastic		ceramic		surface mount				
			SOT-37	SOT-103	SOT-122	SOT-173	SOT-23	SOT-89	SOT-143*	SOT-223	SOT-323
(7)	NPN	BFQ53	BFR90(A)	BFG90A		BFP90A	BFR92(A)		BFG92A (/X, /XR)		BFR92AW
	PNP	BFQ52	BFQ51				BFT92				BFT92AW
(8)	NPN	BFQ225	BFR91(A)	BFG91A		BFP91A	BFR93(A)		BFG93A (/X, /XR)	BFG94	BFR93AW
(9)	PNP	BFQ24	BFQ23			BFO23C	BFT93				BFT93AW
(10)	NPN	BFQ63	BFR96(S)	BFG96		BFP96	BFR106	BFQ19		BFG97	
	PNP	BFQ32M	BFQ32(S)	BFG32		BFQ32C		BFQ149		BFG31	
(11)	NPN		BFQ34T	BFG34	BFQ34			BFQ18A		BFG35	
	PNP		BFQ54T							BFG55	
(12)	NPN					BFO68					
	PNP					BFQ108					
(13)	NPN					BFQ136					

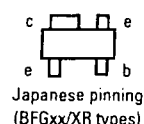
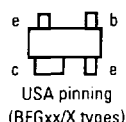
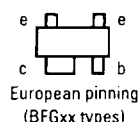
Third Generation RF Wideband Transistors (f_T to 8 GHz)

f_T/f_C Curve	Polarity	plastic		ceramic		surface mount				
		SOT-37	SOT-103	SOT-172	SOT-173	SOT-23	SOT-143*	SOT-223	SOT-323	
(14)	NPN	BFQ65	BFG65		BFQ66	BFQ67	BFG67 (/X, /XR)			BFQ67W
(15)	NPN		BFG195				BFG197 (/X, /XR)	BFG198		
(16)	NPN	BFR134	BFG134	BFQ135					BFG135	
(17)	NPN				BFQ33C		BFG33 (/X, /XR)			
(20)	NPN			BFQ270						

Fourth Generation RF Wideband Transistors (f_T to 10 GHz)

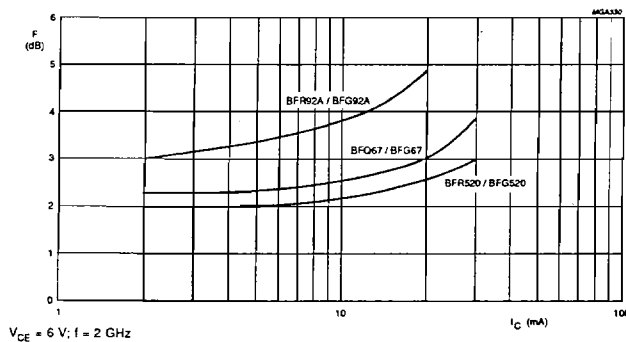
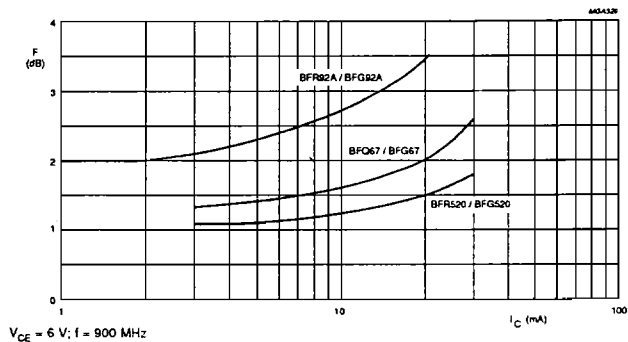
f_T/f_C Curve	Polarity	plastic SOT-103	ceramic		surface mount					
			SOT-172	SOT-173	SOT-23	SOT-143*	SOT-223	SOT-323		
(19)	NPN					BFT25A	BFG25A/X			BFS25A
(21)	NPN				BFP505	BFR505	BFG505 (/X, /XR)			BFS505
(22)	NPN	BFR521			BFP520	BFR520	BFG520 (/X, /XR)			BFS520
(23)	NPN	BFR541			BFP540	BFR540	BFG540 (/X, /XR)	BFG541		BFS540
(24)	NPN	BFR591					BFG590 (/X, /XR)	BFG591		
(25)	NPN			BFQ621					BFG621	
(26)	NPN			BFQ741					BFG741	

* SOT143 envelopes are available with the following pinning: (top views)

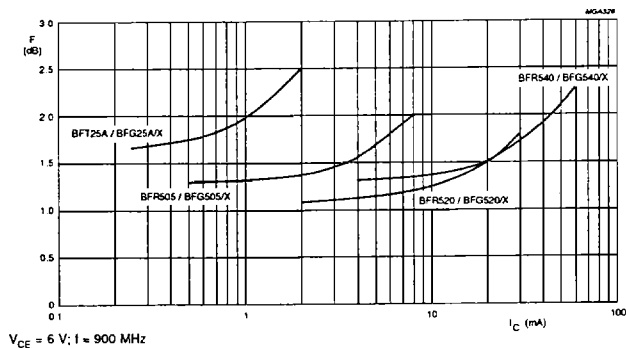


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For low noise applications, the following graphs show a comparison of 900 MHz and 2GHz noise figure for 2nd, 3rd and 4th generation types in surface mount SOT-23 and SOT-143 packages:



Recommended for low noise applications are 4th generation types. The following graph shows typical noise figure for various 4th generation types in surface mount SOT-23 and SOT-143 packages:



The following graph shows typical power gain for 2nd, 3rd and 4th generation types in surface mount SOT-143 packages:

