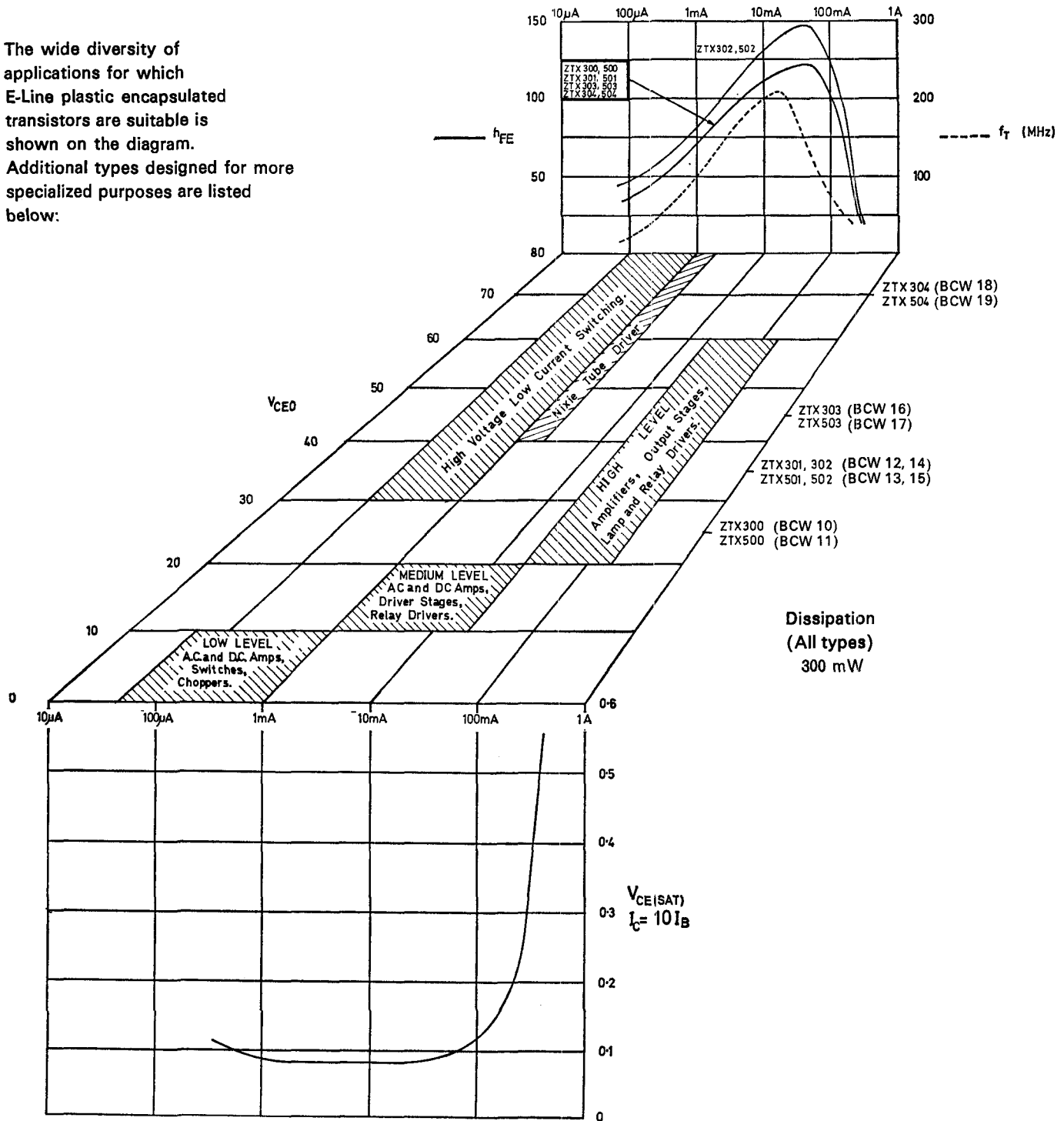


# E-Line Transistors Applications Chart

# SILICON TRANSISTORS

The wide diversity of applications for which E-Line plastic encapsulated transistors are suitable is shown on the diagram. Additional types designed for more specialized purposes are listed below:



Type	Application	Competitive Type	Type	Application	Competitive Type
ZTX330, BCW20	n-p-n low level, low noise.	2N3707	ZTX107	n-p-n high gain, low noise	BC107 BC108 BC109
ZTX331, BCW22	n-p-n low level, low noise.	2N929	ZTX108 ZTX109		
ZTX510, BSV33 ZTX511, BCW21	p-n-p switching p-n-p low level, low noise.	TIS50 2N4058	ZTX341, BSV28 ZTX342, BSV29		
ZTX531, BCW23	p-n-p low level, low noise.	2N2604 (complement to 2N929)	ZTX350	Single P-Channel MNOS	—

# SILICON TRANSISTORS

## E-Line General Purpose (n-p-n)

Type No.	Maximum Ratings						Characteristics						Package	Outline Drawing	Comments
	V <sub>CBO</sub>	V <sub>CEO(sus)</sub>	V <sub>EBO</sub>	I <sub>CM</sub>	P <sub>tot</sub> mW T <sub>amb</sub> =		V <sub>CE(sat)</sub>		h <sub>FE</sub> I <sub>C</sub> =10mA V <sub>CE</sub> =6V		I <sub>CBO</sub> max.	f <sub>T</sub> min.			
					volts	volts	volts	mA	25°C	75°C					
ZTX107	60	50	5	100	300	150	0.1**	10	125‡‡	500‡‡	0.015	350**	E-Line	T21	For low cost, high performance systems
ZTX107A	60	50	5	100	300	150	0.1**	10	125‡‡	260‡‡	0.015	350**	E-Line	T21	
ZTX107B	60	50	5	100	300	150	0.1**	10	240‡‡	500‡‡	0.015	350**	E-Line	T21	
ZTX108	45	30	5	100	300	150	0.1**	10	125‡‡	500‡‡	0.015	350**	E-Line	T21	
ZTX108A	45	30	5	100	300	150	0.1**	10	125‡‡	260‡‡	0.015	350**	E-Line	T21	
ZTX108B	45	30	5	100	300	150	0.1**	10	240‡‡	500‡‡	0.015	350**	E-Line	T21	
ZTX108C	45	30	5	100	300	150	0.1**	10	450‡‡	900‡‡	0.015	350**	E-Line	T21	
ZTX109	45	30	5	100	300	150	0.1**	10	240‡‡	900‡‡	0.015	350**	E-Line	T21	
ZTX109B	45	30	5	100	300	150	0.1**	10	240‡‡	500‡‡	0.015	350**	E-Line	T21	
ZTX109C	45	30	5	100	300	150	0.1**	10	450‡‡	900‡‡	0.015	350**	E-Line	T21	
ZTX114	30	25	6.0	—	300	100	0.35	10	200‡‡	—	0.2	350**	E-Line	T21	Low noise high gain
ZTX300, BCW10	25	25	5	500	300	150	0.35	50	50	300	0.2	150	E-Line	T21	For low cost, high performance systems
ZTX301, BCW12	35	35	5	500	300	150	0.25	50	50	300	0.2	150	E-Line	T21	
ZTX302, BCW14	35	35	5	500	300	150	0.25	50	100	300	0.2	150	E-Line	T21	
ZTX303, BCW16	45	45	5	500	300	150	0.35	50	50	300	0.2	150	E-Line	T21	
ZTX304, BCW18	70	70	5	500	300	150	0.35	50	50	300	0.2	150	E-Line	T21	
ZTX330, BCW20	30	30	5	500	300	150	0.7	10	100‡	400‡	0.2	30	E-Line	T21	
ZTX331, BCW22	45	45	5	500	300	150	0.7	10	40*	120*	0.2	30	E-Line	T21	
ZTX341, BSV28	100	100‡	5	100	300	150	0.5	2	30‡‡	—	0.5‡	—	E-Line	T21	Designed for use as Nixie Drivers Specially designed for low noise purposes
ZTX342, BSV29	120	120‡	5	100	300	150	0.5	2	30‡‡	—	0.5‡	—	E-Line	T21	
ZTX382	50	45	6	100	450	225	0.25	10	100‡	480‡	0.015	150	E-Line	T21	Specially designed for low noise purposes
ZTX383	45	30	6	100	450	225	0.25	10	100‡	850‡	0.015	150	E-Line	T21	
ZTX384	45	30	6	100	450	225	0.25	10	100‡	—	0.015	150	E-Line	T21	

\*I<sub>C</sub>=10μA ‡I<sub>C</sub>=100Aμ ‡‡I<sub>C</sub>=2mA V<sub>CE</sub>=5V \*\*Typical ‡‡V<sub>CE</sub> 5V ‡‡I<sub>C</sub>=2mA, V<sub>CE</sub>=1V †I<sub>CER</sub> †I<sub>C</sub>=10μA, V<sub>CE</sub>=5V

NOTE: A, B and C variations of the basic ZTX107, 8, 9 types will be indicated by colour coding as shown below.

### COLOUR CODING

Basic Type	h <sub>FE</sub> Category	Coloured Spot
ZTX107, 8	A	Red
ZTX107, 8, 9	B	Green
ZTX108, 9	C	Blue

## E-Line General Purpose (p-n-p)

Type No.	Maximum Ratings						Characteristics						Package	Outline Drawing	Comments
	V <sub>CBO</sub>	V <sub>CEO(sus)</sub>	V <sub>EBO</sub>	I <sub>CM</sub>	P <sub>tot</sub> mW T <sub>amb</sub> =		V <sub>CE(sat)</sub>		h <sub>FE</sub> I <sub>C</sub> =10mA V <sub>CE</sub> =6V		I <sub>CBO</sub> max.	f <sub>T</sub> min.			
					volts	volts	volts	mA	25°C	75°C					
ZTX500, BCW11	-25	-25	-5	500	300	150	-0.35	50	50	300	0.2	150	E-Line	T21	For low cost, high performance systems
ZTX501, BCW13	-35	-35	-5	500	300	150	-0.25	50	50	300	0.2	150	E-Line	T21	
ZTX502, BCW15	-35	-35	-5	500	300	150	-0.25	50	100	300	0.2	150	E-Line	T21	
ZTX503, BCW17	-45	-45	-5	500	300	150	-0.35	50	50	300	0.2	150	E-Line	T21	
ZTX504, BCW19	-70	-70	-5	500	300	150	-0.35	50	50	300	0.2	150	E-Line	T21	
ZTX530, BCW21	-30	-30	-5	500	300	150	-0.7	10	100‡	400‡	0.2	30	E-Line	T21	
ZTX531, BCW23	-45	-45	-5	500	300	150	-0.7	10	40*	120*	0.2	30	E-Line	T21	

\*I<sub>C</sub>=10μA ‡I<sub>C</sub>=100μA

## MNOS

Type No.	Maximum Ratings			Characteristics					Package	Outline Drawing
	Drain-Source Voltage V <sub>DS</sub> volts	Gate-Substrate Voltage volts	Dissipation mW	Threshold Voltage V <sub>TH</sub> volts		Mutual Conductance gm mA/V		Drain-Source ON Resistance (max.) kΩ		
				min.	max.	min.	max.			
ZTX350	-20	-20	300	-2	-6	0.5	2.5	1.5	E-Line	T26

Lead Configuration:— The leads of E-Line devices can be preformed, on request, to the TO-5 configuration and when this is done suffix K is added to the type number. Similarly, suffix L indicates that the leads have been preformed to the TO-18 configuration. For flat mounting, suffix M is added to the type number.