

SMALL-SIGNAL TRANSISTORS — PLASTIC (continued)

Darlington Transistors (TO-92)

Darlington amplifiers are cascade transistors used in applications requiring very high gain and input impedance. These devices have monolithic construction.

Device Type	Pin Out	Absolute Max. Rating at 25°C		BVCEO	HFE(1)				VCESAT			FT		Complementary Device Type
		Max PD Free Air at 25°C (mW)	Max IC (mA)		Bias		Min.	Max.	Bias		Max. V	IC (mA)	Min. (MHz)	
					VCE (V)	IC (mA)			IC (mA)	IB (mA)				

NPN

BC372	EBC	625	1000	100	5.0	100	25 K	160 K	250	0.25	1.0	100	100	MPSA62 MPSA63 MPSA64 MPSA75 MPSA76 MPSA77
BC373	EBC	625	1000	80	5.0	100	25 K	160 K	250	0.25	1.0	100	100	
BC617	CBE	625	1000	40	5.0	200	20 K	70 K	200	0.20	1.1	500	150	
BC618	CBE	625	1000	55	5.0	200	10 K	50 K	200	0.20	1.1	500	150	
2N6426	EBC	625	500	40	5.0	100	30 K	300 K	500	0.50	1.5	10	125	
2N6427	EBC	625	500	40	5.0	100	20 K	200 K	500	0.50	1.5	10	125	
MPSA12	EBC	625	500	20(3)	5.0	10	20 K	—	10	0.01	1.0	10	125	
MPSA13	EBC	625	500	30(3)	5.0	100	10 K	—	100	0.10	1.5	10	125	
MPSA14	EBC	625	500	30(3)	5.0	100	20 K	—	100	0.10	1.5	10	125	
MPSA25	EBC	625	500	40(3)	5.0	100	10 K	—	100	0.10	1.5	10	125	
MPSA26	EBC	625	500	50(3)	5.0	100	10 K	—	100	0.10	1.5	10	125	
MPSA27	EBC	625	500	60(3)	5.0	100	10 K	—	100	0.10	1.5	10	125	
MPSA28	EBC	625	500	80(3)	5.0	100	10 K	—	100	0.10	1.4	10	125	
MPSA29	EBC	625	500	100(3)	5.0	100	10 K	—	100	0.10	1.4	10	125	
BC517	CBE	625	400	30(4)	2.0	20	30 K	—	100	0.10	1.0	10	125	

PNP

MPSA62	EBC	625	500	20(3)	5.0	10	5 K	—	10	0.01	1.0	100	125	MPSA12
MPSA63	EBC	625	500	30(3)	5.0	100	10 K	—	100	0.10	1.5	100	125	MPSA13
MPSA64	EBC	625	500	30(3)	5.0	100	20 K	—	100	0.10	1.5	100	125	MPSA14
MPSA75	EBC	625	500	40(3)	5.0	100	10 K	—	100	0.10	1.5	10	125	MPSA25
MPSA76	EBC	625	500	50(3)	5.0	100	10 K	—	100	0.10	1.5	10	125	MPSA26
MPSA77	EBC	625	500	60(3)	5.0	100	10 K	—	100	0.10	1.5	10	125	MPSA27

(1) Pulse Test/Pulse Width ≤ 300 μs — Duty Cycle ≤ 2.0% (3) BV_{CES} @ I_C = 100 μ (4) BV_{CES} @ I_C = 2 mA.

(2) NF I_C = 100 μA: V_{CE} = 5 v, R_S = 10 K, F = 10 Hz to 15.7 KHz.

Dual Diodes

Dual diodes designed for use in low cost biasing, steering and voltage doubler applications including series, common cathode and common anode diodes.

Device Type	V _(BR) Volts Min.	@ I _(BR) μA	I _R μA Max.	@ V _R Volts	V _F @ Volts Min./Max.	I _F mA	C _{VR} = 0 pF Max.	t _{rr} ns Max.	Description
MSD6100	100	100	0.1	50	0.67/0.82	10	1.5	4.0	Switching