

8514019 SPRAGUE, SEMICONDS/ICS

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PLASTIC-CASE BIPOLAR TRANSISTORS

PNP Transistors

'MPS' Device Types

ELECTRICAL CHARACTERISTICS at  $T_A = 25^\circ\text{C}$

Device Type	$I_C$ Max. (mA)	$V_{(BR)CBO}$ (V)	$V_{(BR)CEO}$ (V)	$V_{(BR)EBO}$ (V)	$I_{CBO}$		DC Current Gain				$V_{CE(sat)}$		$f_T$		$C_{ob}^1$ (pF)	$t_s^1$ (ns)	NF1 (dB)	Process
					Max. (nA)	@ $V_{CB}$ (V)	$h_{FE}$ Min.	$h_{FE}$ Max.	@ $I_C$ (mA)	@ $V_{CE}$ (V)	Max. (V)	@ $I_C$ (mA)	Min. (MHz)	@ $I_C$ (mA)				
MPSD51	500	200	200	4.0	100	80	25	—	10	10	—	—	40	10	—	—	—	BMA
MPSD52	300	140	140	4.0	100	80	25	—	10	10	—	—	40	10	—	—	—	VHB
MPSD53	300	100	100	4.0	100	80	25	—	10	10	—	—	40	10	—	—	—	VHB
MPSD54	500	25	25 <sup>3</sup>	10	1000	20	2K	—	100	5.0	1.0	100	100	10	—	—	—	SRB
MPSD55	800	25	25	—	1000	20	80	—	100	5.0	0.5	100	100	50	—	—	—	JMA
MPSD56	800	25	25	4.0	1000	20	50	—	10	5.0	0.3	50	100	10	—	—	—	JMA
MPSH81	—	20	20	3.0	100	10	60	—	5.0	10	0.5	5.0	600	5.0	0.85	—	—	JYA
MPSL51	500	100	100	4.0	1000	50	40	250	50	5.0	0.25	10	60	10	8.0	—	—	VHB

- NOTES:  
 1) Maximum at typical JEDEC conditions.  
 2)  $\mu\text{A}$ .  
 3)  $V_{(BR)CES}/I_{CES}$ , as applicable.  
 4) mA.  
 5)  $V_{(BR)CER}$  at  $R = 10\Omega$ .

'D' Device Types

ELECTRICAL CHARACTERISTICS at  $T_A = 25^\circ\text{C}$

Device Type	$I_C$ Max. (mA)	$V_{(BR)CBO}$ (V)	$V_{(BR)CEO}$ (V)	$V_{(BR)EBO}$ (V)	$I_{CBO}$		DC Current Gain				$V_{CE(sat)}$		$f_T$		$C_{ob}^1$ (pF)	$t_s^1$ (ns)	NF1 (dB)	Process
					Max. (nA)	@ $V_{CB}$ (V)	$h_{FE}$ Min.	$h_{FE}$ Max.	@ $I_C$ (mA)	@ $V_{CE}$ (V)	Max. (V)	@ $I_C$ (mA)	Min. (MHz)	@ $I_C$ (mA)				
D29A4	500	35	25	4.0	10	25	40	120	50	4.5	—	—	—	—	8.0	—	—	JFA
D29A5	500	35	25	4.0	10	25	100	300	50	4.5	—	—	—	—	8.0	—	—	JFA
D29E1	800	35 <sup>3</sup>	25	5.0	100 <sup>3</sup>	25	60	200	2.0	2.0	0.75	500	100	50	15	—	—	JMA
D29E2	800	35 <sup>3</sup>	25	5.0	100 <sup>3</sup>	25	150	500	2.0	2.0	0.75	500	135	50	15	—	—	JMA
D29E4	800	50 <sup>3</sup>	40	5.0	100 <sup>3</sup>	25	60	120	2.0	2.0	0.75	500	80	50	15	—	—	JMA
D29E5	800	50 <sup>3</sup>	40	5.0	100 <sup>3</sup>	25	100	200	2.0	2.0	0.75	500	120	50	15	—	—	JMA
D29E6	800	50 <sup>3</sup>	40	5.0	100 <sup>3</sup>	25	150	300	2.0	2.0	0.75	500	135	50	15	—	—	JMA
D29E7	800	50 <sup>3</sup>	40	5.0	100 <sup>3</sup>	25	250	500	2.0	2.0	0.75	500	150	50	15	—	—	JMA
D29E9	800	70 <sup>3</sup>	60	5.0	100 <sup>3</sup>	25	60	120	2.0	2.0	0.75	500	80	50	15	—	—	JMA
D29E10	800	70 <sup>3</sup>	60	5.0	100 <sup>3</sup>	25	100	200	2.0	2.0	0.75	500	120	50	15	—	—	JMA

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 5)  $V_{(BR)CER}$  at  $R = 10\Omega$ .