

# SMALL-SIGNAL TRANSISTORS & DIODES & MEDIUM-POWER RECTIFIERS

## Small-signal FETs

### P-CHANNEL VERTICAL D-MOSFETS

type number	ratings			characteristics									package
	$-V_{DS}$ max. (V)	$-I_D$ max. (mA)	$P_{tot}^{1)}$ max. (mW)	$-V_{GS(th)}$ min. (V)	$R_{DS(on)}$ max. ( $\Omega$ )	at $-I_D/-V_{GS}$ (mA/V)	$t_{on}^{2)}$ typ. (ns)	$t_{off}^{3)}$ typ. (ns)	$ Y_{fs} $ typ. (mS)	$C_{is}$ typ. (pF)	$C_{rs}$ typ. (pF)		
<b>LEADED TYPES</b>													
BS208	200	200	830	0.8	2.8	14	200/10	5	20	200	55	5	TO-92
BS250	45	250	830	1.0	3.5	14	200/10	4	10	125	30	5	TO-92
BSP204(A)	200	250	1000	0.8	2.8	15	200/10	5	20	200	65	6	TO-92
BSP254(A)	250	200	1000	0.8	2.8	15	200/10	5	20	200	65	6	TO-92
BSP304(A)	300	170	1000	0.8	2.8	17	170/10	10	30	100 <sup>4)</sup>	90 <sup>5)</sup>	15 <sup>5)</sup>	TO-92
BSS88	230	250	1000	0.4	1.2	8	150/5	5	20	200	50	5	TO-92
BSS92	200	150	1000	0.8	2.8	20	100/10	20	50	100	170	6	TO-92
BSS110	50	170	850	0.8	2	10	170/10	3	7	50 <sup>4)</sup>	25	3.5	TO-92
BST100	60	300	1000	1.5	3.5	6	200/10	4	20	200	55	8	TO-92
BST110	50	250	830	1.5	3.5	10	200/10	4	10	125	30	5	TO-92
<b>SURFACE-MOUNT TYPES</b>													
BSP92	200	180	1500	0.8	2.0	20	180/10	5	20	200	65	6	SOT223
BSP205	60	275	1500	1.5	3.5	10	200/10	3	10	125	30	5	SOT223
BSP206	60	350	1500	1.5	3.5	6.0	200/10	4	15	200	55	8	SOT223
BSP220	240	150	1000	0.8	2.8	20	100/10	20	50	100	170	6	SOT223
BSP225	250	225	1500	0.8	2.8	15	200/10	5	20	200	65	6	SOT223
BSP230	300	210	1500	0.8	2.8	17	170/10	10	30	100 <sup>4)</sup>	90 <sup>5)</sup>	15 <sup>5)</sup>	SOT223
BSS84	50	130	360	0.8	2.0	10	1/50	20	43	70	40	6	SOT23
BSS192	200	150	1000	0.8	2.8	20	100/10	20	50	100	170	6	SOT89
BST120	60	300	1000	1.5	3.5	6.0	200/10	4	20	200	55	8	SOT89
BST122	50	250	1000	1.5	3.5	10	200/10	4	10	125	30	5	SOT89

1)  $T_{amb} = 25^\circ\text{C}$ 2)  $t_{on} = t_{delay} + t_{rise}$ 3)  $t_{off} = t_{delay} + t_{fall}$ 

4) minimum

5) maximum

