

## GERMANIUM POWER TRANSISTORS

TYPE NUMBER	CASE TYPE	$V_{CBO}$ V	$V_{CEO}$ V	$V_{EBO}$ V	$V_{CER}$ V	$V_{CES}$ V	CURRENT GAIN				SATURATION VOLTAGES				
							$h_{FE}$		$V_{CE}$ V	$I_C$ A	$V_{CE(s)}$ V	$V_{BE(s)}$ V	$I_C$ A	$I_B$ A	
							MIN.	MAX.	@		@				
<b>2 AMP GERMANIUM PNP</b>															
2N250	TO-3	30		15.0			30		2.0	.5	.25		.5	.050	
2N251	TO-3	60		15.0			30		2.0	.5	.25		.5	.050	
2N296	TO-3	60		15.0	60		20		2.0	1.0	1.00		1.0	.100	
2N301	TO-3	40		10.0	50		30	70	1.5	.5					
2N301A	TO-3	60		10.0	50		30	70	1.5	.5					
2N307A	TO-3	35		10.0			30		1.0	.5					
<b>3 AMP GERMANIUM PNP</b>															
CA2D2	MT-36	20	20	1.2			20		2.0	2.0	.60		2.0	.200	
2N155	TO-3	30		15.0			24		2.0	.5	.65		1.0	.100	
2N176	TO-3	40		10.0			25	90	2.0	.5					
2N235A	TO-3	50		15.0	40		20	80	2.0		.80		1.0	.100	
2N236A	TO-3	50		15.0	35		20	80	2.0		1.00		3.0	.300	
2N236B	TO-3	50		15.0	35		40	120	2.0		1.00		3.0	.300	
2N242	TO-3	45		45.0			30	90	2.0	.5					
2N255	TO-3	15		15.0			20	100	2.0	.5	.50		.1	.010	
2N256	TO-3	30		30.0			20	100	2.0	.5	.50		.1	.010	
2N268	TO-3	80		40.0			28		2.0	.5					
2N285A	TO-3	25		15.0	35		38		2.0						
2N285B	TO-3	25		15.0	35		38		2.0						
2N297A	TO-3	60	50	40.0		50	40	100	2.0	.5	1.00		.2	.200	
2N375	TO-3	80		40.0		60	35	90	4.0	1.0	1.00		2.0	.200	
2N392	TO-3	60	40	40.0			40	200	2.0	1.0					
2N399	TO-3	25		15.0	35		36	40	2.0						
2N538	MT-36	80	60	28.0			20	50	2.0	2.0	.60		2.0	.200	
2N538A	MT-36	80	60	28.0			20	50	2.0	2.0	.60		2.0	.200	
2N539	MT-36	80	55	28.0			30	75	2.0	2.0	.60		2.0	.200	
2N539A	MT-36	80	55	28.0			30	75	2.0	2.0	.60		2.0	.200	
2N540	MT-36	80	55	28.0			45	113	2.0	2.0	.60		2.0	.200	
2N540A	MT-36	80	55	28.0			45	113	2.0	2.0	.60		2.0	.200	
2N554	TO-3	40		10.0	30		25		2.0		.60		3.0	.300	
2N555	TO-3	30		15.0		30	20		2.0	.5	.40		.3	.300	
2N618	TO-3	80		40.0		60	60	140	4.0	1.0	.80		2.0	.200	
2N1359	TO-3	50		25.0		40	35	90	4.0	1.0	1.00		2.0	.200	
2N1360	TO-3	50		25.0		40	60	150	4.0	1.0	1.00		2.0	.200	
2N1362	TO-3	100		50.0		75	35	90	4.0	1.0	1.00		2.0	.200	
2N1363	TO-3	100		50.0		75	60	140	4.0	1.0	1.00		2.0	.200	
2N1364	TO-3	120		60.0		100	35	90	4.0	1.0	1.00		2.0	.200	
2N1365	TO-3	120		60.0		100	40	100	4.0	1.0	1.00		2.0	.200	
2N1501	MT-36	60	40	28.0			25	100	2.0	2.0	.60		2.0	.200	
2N1502	MT-36	40	40	28.0			25	100	2.0	2.0	.60		2.0	.200	
<b>4 AMP GERMANIUM PNP</b>															
2N234A	TO-3	25			25		25		2.0						
2N235B	TO-3	25		15.0	35		34	40	2.0						
2N255A	TO-3	15		15.0	15		25		2.0						
2N256A	TO-3	30		15.0	25		25		2.0						
2N257	TO-3	40		6.0			20		2.0						
2N553	TO-3	80		40.0			40	80	2.0	.5	.90		.3	.220	
2N663	TO-3	50	25	20.0			25	75	2.0	.5	1.00	1.50	.3	.600	
2N1159	TO-3	80	60	20.0			30	75	2.0	3.0	.07		3.0	.200	
<b>5 AMP GERMANIUM PNP</b>															
2N350	TO-3	50		10.0		30	20	60	2.0	.7	.40		3.0	.300	
2N350A	TO-3	50		25.0		40	20	60	2.0	.7	1.75		3.0	.300	
2N351	TO-3	50		10.0		30	25	90	2.0	.7	.40		3.0	.300	
2N351A	TO-3	50		25.0		40	25	90	2.0	.7	1.75		4.0	.400	
2N376	TO-3	50		10.0		30	35	120	2.0	.7	.40		3.0	.300	
2N376A	TO-3	50		25.0		40	35	120	2.0	.7	1.75		5.0	.500	
2N665	TO-3	80		40.0			40	80	2.0	.5	.90		.3	.200	
2N669	TO-3	40		20.0		30	75	250	2.0	.5					
2N1011	TO-3	80	40	40.0		80	30	75	2.0	3.0	.15		3.0	.200	

## GERMANIUM POWER TRANSISTORS

$\theta_{J-C}$ °C/W	TYPICAL SWITCHING TIMES					$V_{CE}$ V	$I_C$ A	EL	TYPE NUMBER
	$t_r$ $\mu s$	$t_{on}$ $\mu s$	$t_s$ $\mu s$	$t_f$ $\mu s$	$t_{off}$ $\mu s$				

**2 AMP GERMANIUM PNP** Observe (–) Negative Polarity

2.20								G4	2N250
2.20								G4	2N251
3.00								G4	2N296
1.00								G4	2N301
1.00								G4	2N301A
1.50								G4	2N307A

**3 AMP GERMANIUM PNP** Observe (–) Negative Polarity

2.20								G5	CA2D2
3.00								G4	2N155
.80								G4	2N176
1.50								G4	2N235A
1.50								G4	2N236A
1.50								G4	2N236B
3.00								G4	2N242
3.00								G4	2N255
3.00								G4	2N256
1.50								G4	2N268
								G4	2N285A
								G4	2N285B
2.00								G4	2N297A
1.20								G4	2N375
.80								G4	2N392
1.50								G4	2N399
2.20								G5	2N538
2.20								G5	2N538A
2.20								G5	2N539
2.20								G5	2N539A
2.20								G5	2N540
2.20								G5	2N540A
1.00								G4	2N554
1.00								G4	2N555
1.20								G4	2N618
.80								G4	2N1359
.80								G4	2N1360
.80								G4	2N1362
.80								G4	2N1363
.80								G4	2N1364
.80								G4	2N1365
2.20								G5	2N1501
2.20								G5	2N1502

**4 AMP GERMANIUM PNP** Observe (–) Negative Polarity

								G4	2N234A
								G4	2N235B
								G4	2N255A
								G4	2N256A
								G4	2N257
2.00								G4	2N553
1.20								G4	2N663
1.20								G4	2N1159

**5 AMP GERMANIUM PNP** Observe (–) Negative Polarity

.80								G4	2N350
.80								G4	2N350A
.80								G4	2N351
.80								G4	2N351A
.80								G4	2N376
.80								G4	2N376A
1.00								G4	2N665
.80								G4	2N669
2.00								G4	2N1011