



AMERICAN MICROSEMICONDUCTOR INC

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TUNNEL DIODES GENERAL PURPOSE

	I_p	I_v	C	V_p	V_v	V_{fp}	R_s	--G	f_{RO}
+ 100° C Operation	Peak Point Current (mA)	Valley Point Current Max. (mA)	Capacitance Max. (pF)	Peak Point Voltage Typ. (mV)	Valley Voltage Typ. (mV)	Forward Peak Voltage Typ. (mV)	Series Resist. Max. (ohms)	Negative Conductive (mhos X 10 ⁹)	Resistive Cutoff Frequency Typ. (GHz)
TD-1									
1N3712	1.0 ± 10%	0.18	10	65	350	500	4.0	8 Typ.	2.3
1N3713*	1.0 ± 2.5%	0.14	5	65	350	510	4.0	8.5 ± 1	3.2
1N3714	2.2 ± 10%	0.48	25	65	350	500	3.0	18 Typ.	2.2
1N3715*	2.2 ± 2.5%	0.32	10	65	350	510	3.0	19 ± 3	3.0
1N3716	4.7 ± 10%	1.04	50	65	350	500	2.0	40 Typ.	1.8
1N3717*	4.7 ± 2.5%	0.60	25	65	350	510	2.0	41 ± 5	3.4
1N3718	10.0 ± 10%	2.20	90	65	350	500	1.5	80 Typ.	1.6
1N3719*	10.0 ± 2.5%	1.40	50	65	350	510	1.5	85 ± 10	2.8
1N3720	22.0 ± 10%	4.80	150	65	350	500	1.0	180 Typ.	1.6
1N3721*	22.0 ± 2.5%	3.10	100	65	350	510	1.0	190 ± 30	2.6
TD-9	0.5 ± 10%	0.10	5	60	—	—	6.0	4.0 Typ.	1.3

ULTRA HIGH-SPEED SWITCHING

	I_p	I_v	C	V_p	V_v	V_{fp}	R_s	t_r
+ 100° C Operation	Peak Point Current (mA)	Valley Point Current Max. (mA)	Capacitance Max. (pF)	Peak Point Voltage Typical (mV)	Valley Voltage Typical (mV)	Forward Voltage @ $I_f = I_p$ Typical (mV)	Series Resist. Typical (ohms)	Rise Time Typical (psec.)
TD-260*								
TD-261	2.2 ± 10%	0.31	3.0	70	390	500 - 700	5.0	430
TD-261A	2.2 ± 10%	0.31	1.0	80	390	500 - 700	7.0	160
TD-262	4.7 ± 10%	0.60	6.0	80	390	500 - 700	3.5	320
TD-262A	4.7 ± 10%	0.60	1.0	90	400	500 - 700	4.0	74
TD-263	10.0 ± 10%	1.40	9.0	75	400	500 - 700	1.7	350
TD-263A	10.0 ± 10%	1.40	5.0	80	410	520 - 700	2.0	190
TD-263B	10.0 ± 10%	1.40	2.0	90	420	550 - 700	2.5	68
TD-264	22.0 ± 10%	3.80	18.0	90	425	600 Typ.	1.8	185
TD-264A	22.0 ± 10%	3.80	4.0	100	425	550 - 700	2.0	64
TD-265	50.0 ± 10%	8.50	25.0	110	425	625 Typ.	1.4	100
TD-265A	50.0 ± 10%	8.50	5.0	130	425	640 Typ.	1.5	35
TD-266	100 ± 10%	17.50	35.0	150	450	650 Typ.	1.1	57
TD-266A	100 ± 10%	17.50	6.0	180	450	660 Typ.	1.2	22

BACK DIODES GENERAL PURPOSE

	I_p	C	Reverse Voltage		I_{F1}	V_{F2}	t_r
	Peak Point Current Max. (mA)	Total Capacitance Max. (pF)	Min		Forward Current @ $V_{R1} = 90$ ± 10 mV (mA)	Forward Voltage @ $I_{F2} = 3 I_{F1}$ Typical (mV)	Rise Time Typical (psec.)
GE Type			V_{R1} @ $I_R = I_p$ max (mV)	V_{R2} @ 1 mA (mV)			
BD-1	1.0	20	440	440	10.0	120	1.0
BD-2	0.5	10	420	465	5.0	130	0.7
BD-3	0.2	10	400	465	2.0	170	0.5
BD-4	0.1	10	380	465	1.0	170	0.4
BD-5	0.05	10	350	465	0.5	160	0.4
BD-6	0.02	10	330	465	0.2	160	0.4
BD-7	0.01	10	300	465	0.1	160	0.4

* Military version available