

TUNNEL DIODES GENERAL PURPOSE

For Switching, Oscillators, Amplifiers, Converter Circuits and Threshold Detectors.

GE TYPE		I _P Peak Point Current (mA)	I _V Valley Point Current Max. (mA)	C Capaci- tance Max. (pF)	V _P Peak Point Voltage Typ. (mV)	V _V Valley Voltage Typ. (mV)	V _{FP} Forward Peak Voltage Typ. (mV)	R _S Series Resist. Max. (Ohms)	—G Negative Con- ductance (mhos × 10 ⁻³)	f _{co} Res. stive Cutoff Frequency Typical (GHz)
+100°C Operation TD-1 ⁽¹⁾	+100°C Subminiature Package TD-200 ⁽²⁾									
1N3712	TD-201	1.0 ± 10%	0.18	10	65	350	500	4.0	8 Typ.	2.3
1N3713 ³	TD-201A	1.0 ± 2.5%	0.14	5	65	350	510	4.0	8.5 ± 1	3.2
1N3714	TD-202	2.2 ± 10%	0.48	25	65	350	500	3.0	18 Typ.	2.2
1N3715 ³	TD-202A	2.2 ± 2.5%	0.31	10	65	350	510	3.0	19 ± 3	3.0
1N3716	TD-203	4.7 ± 10%	1.04	50	65	350	500	2.0	40 Typ.	1.8
1N3717 ³	TD-203A	4.7 ± 2.5%	0.60	25	65	350	510	2.0	41 ± 5	3.4
1N3718	TD-204	10.0 ± 10%	2.20	90	65	350	500	1.5	80 Typ.	1.6
1N3719 ³	TD-204A	10.0 ± 2.5%	1.40	50	65	350	510	1.5	85 ± 10	2.8
1N3720	TD-205	22.0 ± 10%	4.80	150	65	350	500	1.0	180 Typ.	1.6
1N3721 ³	TD-205A	22.0 ± 2.5%	3.10	100	65	350	510	1.0	190 ± 30	2.6
TD-9	TD-206	0.5 ± 10%	0.10	5	60	—	—	6.0	4.0 Typ.	1.3

⁽¹⁾ TD-1 Series in Miniature Axial Pkg.—Outline No. 47 Nominal Series Inductance L_S = 0.5 nH.

⁽²⁾ TD-200 Series in Sandwich Pkg.—Outline No. 48.

⁽³⁾ Mil Versions Available.

TUNNEL DIODES ULTRA HIGH SPEED SWITCHING

For High Speed Memory Circuits, Pulse Generators and Threshold Detectors.

GE TYPE			I _P Peak Point Current (mA)	I _V Valley Point Current Max. (mA)	C Capaci- tance Max. (pF)	V _P Peak Point Voltage Typical (mV)	V _V Valley Voltage Typical (mV)	V _{FP} Forward Voltage @ I _F = I _P Typ. (mV)	R _S Series Resist. Typical (Ω)	t _r Rise Time Typical (psec.)
L _S = 1.5 nH		L _S = .15 nH +100°C Low Inductance TD-270 ⁽²⁾								
+75°C Operation TD-250 ⁽¹⁾	+100°C Operation TD-260 ⁽¹⁾									
TD-251	TD-261	TD-271	2.2 ± 10%	0.31	3.0	70	390	500-700	5.0	430
TD-251A	TD-261A	TD-271A	2.2 ± 10%	0.31	1.0	80	390	500-700	7.0	160
TD-252	TD-262	TD-272	4.7 ± 10%	0.60	6.0	80	390	500-700	3.5	320
TD-252A	TD-262A	TD-272A	4.7 ± 10%	0.60	1.0	90	400	500-700	4.0	74
TD-253	TD-263	TD-273	10.0 ± 10%	1.40	9.0	75	400	500-700	1.7	350
TD-253A	TD-263A	TD-273A	10.0 ± 10%	1.40	5.0	80	410	520-700	2.0	190
TD-253B	TD-263B	TD-273B	10.0 ± 10%	1.40	2.0	90	420	550-700	2.5	68
TD-254	TD-264	TD-274	22.0 ± 10%	3.80	18.0	90	425	600 Typ.	1.8	185
TD-254A	TD-264A	TD-274A	22.0 ± 10%	3.80	4.0	100	425	550-700	2.0	64
TD-255	TD-265	TD-275	50.0 ± 10%	8.50	25.0	110	425	625 Typ.	1.4	100
TD-255A	TD-265A	TD-275A	50.0 ± 10%	8.50	5.0	130	425	640 Typ.	1.5	35
TD-256	TD-266	TD-276	100 ± 10%	17.50	35.0	150	450	650 Typ.	1.1	57
TD-256A	TD-266A	TD-276A	100 ± 10%	17.50	6.0	180	450	660 Typ.	1.2	22

⁽¹⁾ TD-250 & 260 Series in Sandwich Pkg.—Outline No. 48.

⁽²⁾ TD-270 Series in Pill Pkg. with Leads—Package Outline No. 49.