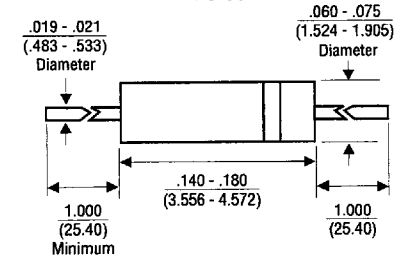
FOUR LAYER DIODES

Parameters for All 4-Layer Diodes @ 25°C

Switching current	Is	125µA
Holding voltage	Vh	0.5 to 1.2 volts
On voltage	Von	<1.2V @ 70 mA
On impedance	Zon	<2 ohms @ 70 mA @ 60 Hz
Forward leakage current	Ifl	<2 µA @ 0.6 Vs
Reverse leakage current	Irl	<2 µA @ 0.6 Vs
Reverse breakdown voltage	Vrb	>0.60 Vs
Turn on time	Ton	10 to 500 ns. Dependent on target value and circuit
Turn off time	Toff	20 to 1000 ns. Dependent on target value and circuit
Capacitance	C	10 to 50 pf. Dependent on nominal Vs and applied voltage
Power rating	P	250 mW. Derating to 25% @ 125°C
Current carrying capacity		250 mA steady DC. Maximum current amps with duty factor, repetition rate, pulse duration and ambient temperature such that power rating is not exceeded.
Ambient temperature operating range		-65°C to +150°C
Storage temperature		-75°C to +200°C

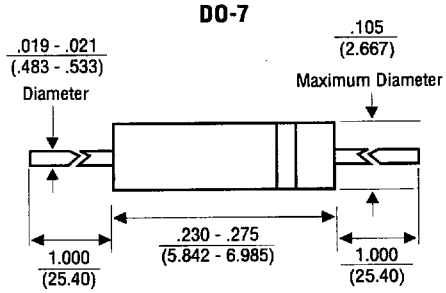
Part #	Switching Voltage		Holding Current Range	
	$V_S \pm V$ @ 25°C (V)	Range -60 to +125°C (V)	I_H @ 25°C (mA)	-40 to +85°C (mA)
1N3299	39 ± 4	—	1 - 15	—
1N3300	17.5 ± 4	—	1 - 15	—
1N3300A	18 ± 4	—	1 - 15	—
1N3303	33 ± 20	—	5 - 20	—
1N3303A	33 ± 10	—	5 - 20	—
1N3304	39 ± 20	—	5 - 20	—
1N33074A	39 ± 10	—	5 - 20	—
1N3489	20 ± 4	—	1 - 6.0	—
1N3489A	20 ± 4	—	1 - 6.0	—
1N3490	20 ± 4	—	14.0 - 45	—
1N3831	20 ± 4	14 - 25	0.5 - 15	40 max.
1N3832	25 ± 4	19 - 30	0.5 - 15	40 max.
1N3833	30 ± 4	23 - 36	0.5 - 15	40 max.
1N3834	35 ± 4	28 - 41	0.5 - 15	40 max.
1N3835	40 ± 4	32 - 46	0.5 - 15	40 max.
1N3836	45 ± 4	37 - 51	0.5 - 15	40 max.
1N3837	50 ± 4	41 - 57	0.5 - 15	40 max.
1N3839	20 ± 4	14 - 25	14.0 - 45	5 min.
1N3840	25 ± 4	19 - 30	14 - 45	
1N3841	30 ± 4	23 - 36	14 - 45	
1N3842	35 ± 4	28 - 41	14 - 45	5 min.
1N3843	40 ± 4	32 - 46	14 - 45	
1N3844	45 ± 4	37 - 51	14 - 45	
1N3845	50 ± 4	41 - 57	14 - 45	
1N3935	30 ± 4	—	30 min.	—
1N3936	20 ± 4	—	8 min.	—
1N3772	15 ± 5	—	1.5 - 50	—

DO-35



Operating temperature -65°C to +150°C
5% standard tolerance; Special tolerances available upon request

DO-7



Operating temperature -65°C to +150°C
5% standard tolerance; 2% and 1% are available

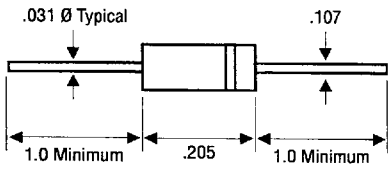
FOUR LAYER DIODES

Part #	Switching Voltage		Holding Current Range
	$V_S \pm V$ @ 25°C (V)	Range -60 to +125°C (V)	I_H @ 25°C (mA)
4E20-3	20 ± 4	—	1 - 6
4E20-M-3	20 ± 4	14 - 25	1 - 6
4E20-8	20 ± 4	—	1 - 15
4E20-M-8	20 ± 4	14 - 25	1 - 15
4E20-28	20 ± 4	—	14 - 45
4E20-M-28	20 ± 4	14 - 25	14 - 45
4E30-3	30 ± 4	—	1 - 6
4E30-M-3	30 ± 4	23 - 36	1 - 6
4E30-8	30 ± 4	—	1 - 15
4E30-M-8	30 ± 4	23 - 36	1 - 15
4E30-28	30 ± 4	—	14 - 45
4E30-M-28	30 ± 4	23 - 36	14 - 45
4E40-3	40 ± 4	—	1 - 6
4E40-M-3	40 ± 4	32 - 46	1 - 6
4E40-8	40 ± 4	—	1 - 15
4E40-M-8	40 ± 4	32 - 46	1 - 15
4E40-28	40 ± 4	—	14 - 45
4E40-M-28	40 ± 4	32 - 46	14 - 45
4E50-3	50 ± 4	—	1 - 6
4E50-M-3	50 ± 4	41 - 57	1 - 6
4E50-8	50 ± 4	—	1 - 15
4E50-M-8	50 ± 4	41 - 57	1 - 15
4E50-28	50 ± 4	—	14 - 45
4E50-M-28	50 ± 4	41 - 57	14 - 45

PLASTIC RECTIFIERS

1.0A				
Part #	Peak Inverse Voltage	Peak Forward Surge Current @ 8.3ms Superimposed	Maximum Forward Voltage @ Ta 25°C @ Rated Io	Maximum Reverse Current @ 25°C @ Rated PIV
	PIV (V)	I_{FSM} (A)	V_{FM} (V)	I_R (μA)
1N4001	50	50	1.0	1.0
1N4001G	50	30	1.1	5.0
1N4002	100	50	1.0	1.0
1N4002G	100	30	1.1	5.0
1N4003	200	50	1.0	1.0
1N4003G	200	30	1.1	5.0
1N4004	400	50	1.0	1.0
1N4004G	400	30	1.1	5.0
1N4005	600	50	1.0	1.0
1N4005G	600	30	1.1	5.0
1N4006	800	50	1.1	1.0
1N4006G	800	30	1.1	5.0
1N4007	1000	50	1.1	1.0
1N4007G	1000	30	1.1	5.0

DO-41



Operating temperature -65°C to +125°C

SEMICONDUCTORS

CALL US AT 617-592-6090
OR FAX US AT 617-592-0677

FAST RECOVERY PLASTIC RECTIFIERS

1.0A					
Part #	Peak Inverse Voltage	Peak Forward Surge Current @ 8.3ms Superimposed	Maximum Forward Voltage @ Ta 25°C @ Rated Io	Maximum Reverse Current @ 25°C @ Rated PIV	Reverse Recovery Time @ Rated PIV
	PIV (V)	I_{FSM} (A)	V_{FM} (V)	I_R (μA)	t_{rr} (nS)
1N4933	50	30	1.30	5.0	200
1N4934	100	30	1.30	5.0	200
1N4935	200	30	1.30	5.0	200
1N4936	400	30	1.30	5.0	200
1N4937	600	30	1.30	5.0	200
1N4942	200	30	1.30	5.0	150
1N4944	400	30	1.30	5.0	150
1N4946	600	30	1.30	5.0	250
1N4947	800	30	1.30	5.0	250
1N4948	1000	30	1.30	5.0	500
TF101	50	30	1.30	5.0	150
TF102	100	30	1.30	5.0	150
TF103	200	30	1.30	5.0	150
TF104	400	30	1.30	5.0	150
TF105	600	30	1.30	5.0	250
TF106	800	30	1.30	5.0	500
TF107	1000	30	1.30	5.0	500
FR101	50	30	1.30	5.0	150
FR102	100	30	1.30	5.0	150
FR103	200	30	1.30	5.0	150
FR104	400	30	1.30	5.0	150
FR105	600	30	1.30	5.0	250
FR106	800	30	1.30	5.0	500
FR107	1000	50	1.30	5.0	500

ULTRA FAST PLASTIC RECTIFIERS

1.0A					
Part #	Peak Inverse Voltage	Peak Forward Surge Current @ 8.3ms Superimposed	Maximum Forward Voltage @ Ta 25°C @ Rated Io	Maximum Reverse Current @ 25°C @ Rated PIV	Reverse Recovery Time @ Rated PIV
	PIV (V)	I_{FSM} (A)	V_{FM} (V)	I_R (μA)	t_{rr} (nS)
UF4001	50	30	1.0	10.0	50
UF4002	100	30	1.0	10.0	50
UF4003	200	30	1.0	10.0	50
UF4004	400	30	1.0	10.0	50
UF4005	600	30	1.7	10.0	75
UF4006	800	30	1.7	10.0	75
UF4007	1000	30	1.7	10.0	75

SUPER FAST PLASTIC RECTIFIERS

1.0A					
Part #	Peak Inverse Voltage	Peak Forward Surge Current @ 8.3ms Superimposed	Maximum Forward Voltage @ Ta 25°C @ Rated Io	Maximum Reverse Current @ 25°C @ Rated PIV	Reverse Recovery Time @ Rated PIV
	PIV (V)	I_{FSM} (A)	V_{FM} (V)	I_R (μA)	t_{rr} (nS)
SF11	50	30	0.950	5.0	35
SF12	100	30	0.950	5.0	35
SF13	150	30	0.950	5.0	35
SF14	200	30	0.950	5.0	35
SF15	300	30	1.250	5.0	35
SF16	400	30	1.250	5.0	35