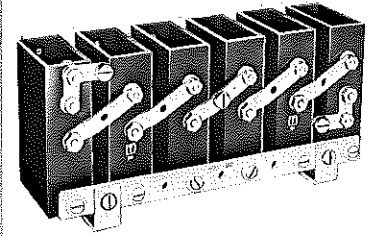


Transitron

HEAVY DUTY STACKS

TK SERIES 1 ϕ HALF WAVE



(1-X-1-H)

Transitron's heavy duty TK series silicon rectifier stacks are rugged, compact assemblies designed for reliable operation in critical military and industrial power supply systems in the intermediate current range. The hermetically sealed cells are protected by the unique construction which combines light-weight rigidity with high thermal efficiency. Operating and storage temperature range is -55°C to $+175^{\circ}\text{C}$. Conservative ratings assure long life.

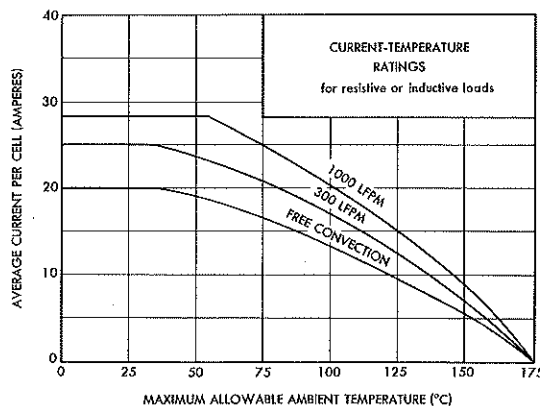
MAXIMUM RATINGS

D.C. SPECIFICATIONS @ 25°C

TYPE	DC OUTPUT VOLTAGE (VOLTS) (1)	PIV PER ARM (VOLTS)	DC OUTPUT CURRENT @ 55°C (AMPS) (1)(2)	MAX. FORWARD VOLTAGE DROP PER ARM (3) (VOLTS @ 20 Adc)	MAX. INVERSE CURRENT @ RATED PIV (4) (mA dc)
TK1H05E1A1	15	50	18	1.5	10
TK1H10E1A1	31	100	18	1.5	10
TK1H15E1A1	47	150	18	1.5	10
TK1H20E1A1	63	200	18	1.5	10
TK1H25E1A1	79	250	18	1.5	10
TK1H30E1A1	95	300	18	1.5	10
TK1H35E1A1	110	350	18	1.5	10
TK1H40E1A1	126	400	18	1.5	10
TK1H50E1A1	158	500	18	1.5	10
TK1H60E1A1	190	600	18	1.5	10
(5) TK2H35E1A2	220	700	18	3.0	10
(5) TK2H40E1A2	253	800	18	3.0	10
(5) TK2H50E1A2	316	1000	18	3.0	10
(5) TK2H60E1A2	380	1200	18	3.0	10
TK3H50E1A3	475	1500	18	4.5	10
TK3H60E1A3	570	1800	18	4.5	10
(5) TK4H35E1A4	442	1400	18	6.0	10
(5) TK4H40E1A4	505	1600	18	6.0	10
(5) TK4H50E1A4	633	2000	18	6.0	10
(5) TK4H60E1A4	760	2400	18	6.0	10
TK5H50E1A5	791	2500	18	7.5	10
TK5H60E1A5	950	3000	18	7.5	10
(5) TK6H50E1A6	950	3000	18	9.0	10
(5) TK6H60E1A6	1140	3600	18	9.0	10

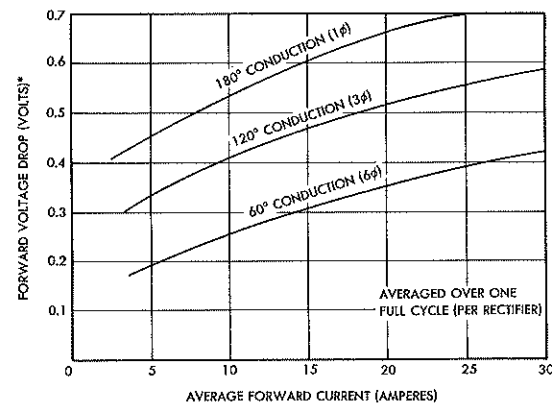
- (1) Resistive or inductive load assuming sinusoidal input waveform.
- (2) For current ratings at other temperatures, see rating curve below. For capacitive or counter-e.m.f. loads derate to 80% of resistive-inductive load rating.
- (3) Testing each rectifier circuit element or arm individually.
- (4) Measured between the AC input terminals with either voltage polarity under no-load conditions.
- (5) Half wave stacks containing even number of rectifiers—may be used as doublers or as two arms of a bridge circuit at one-half PIV rating.

CURRENT RATINGS



TK SERIES HALF-WAVE

FORWARD CHARACTERISTICS



TE-1343A
8-59

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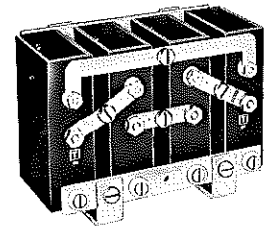
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Transitron

HEAVY DUTY STACKS

TK SERIES 1 ϕ BRIDGE



(4-1-1-B)

Transitron's heavy duty TK series silicon rectifier stacks are rugged, compact assemblies designed for reliable operation in critical military and industrial power supply systems in the intermediate current range. The hermetically sealed cells are protected by the unique construction which combines light-weight rigidity with high thermal efficiency. Operating and storage temperature range is -55°C to $+175^{\circ}\text{C}$. Conservative ratings assure long life.

MAXIMUM RATINGS

D.C. SPECIFICATIONS @ 25°C

TYPE	DC OUTPUT VOLTAGE (VOLTS) (1)	PIV PER ARM (VOLTS)	DC OUTPUT CURRENT @ 55°C (AMPS) (1)(2)	MAX. FORWARD VOLTAGE DROP PER ARM (3) (VOLTS @ 45 Adc)	MAX. INVERSE CURRENT @ RATED PIV (4) (mA dc)
TK4B05E1A1	26.5	50	36	1.5	20
TK4B10E1A1	58.5	100	36	1.5	20
TK4B15E1A1	90	150	36	1.5	20
TK4B20E1A1	122	200	36	1.5	20
TK4B25E1A1	154	250	36	1.5	20
TK4B30E1A1	185	300	36	1.5	20
TK4B35E1A1	217	350	36	1.5	20
TK4B40E1A1	249	400	36	1.5	20
TK4B50E1A1	313	450	36	1.5	20
TK4B60E1A1	376	500	36	1.5	20

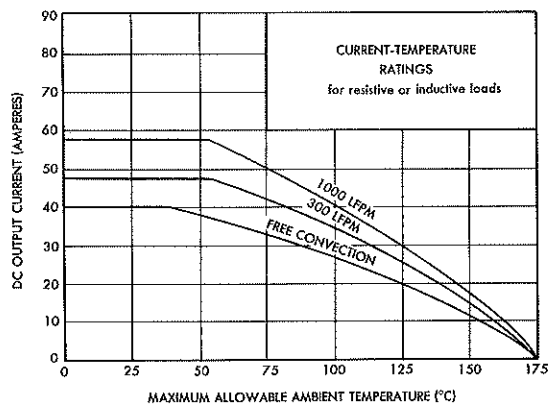
(1) Resistive or inductive load assuming sinusoidal input waveform.

(2) For current ratings at other temperatures, see rating curve below. For capacitive or counter-e.m.f. loads derate to 80% of resistive-inductive load rating.

(3) Testing each rectifier circuit element or arm individually.

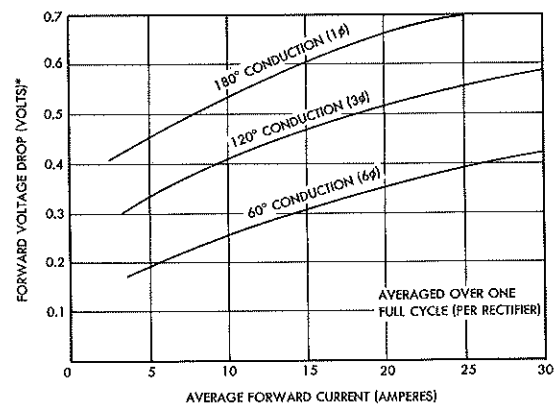
(4) Measured between the AC input terminals with either voltage polarity under no-load conditions.

CURRENT RATINGS



TK SERIES 1 ϕ BRIDGE

FORWARD CHARACTERISTICS



TE-1343B
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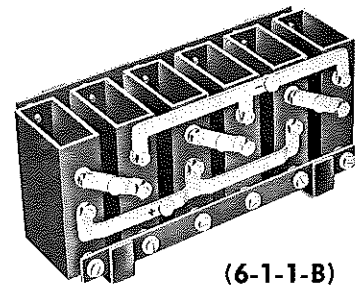
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HEAVY DUTY STACKS

**TK SERIES
3 ϕ BRIDGE**



(6-1-1-B)

Transitron's heavy duty TK series silicon rectifier stacks are rugged, compact assemblies designed for reliable operation in critical military and industrial power supply systems in the intermediate current range. The hermetically sealed cells are protected by the unique construction which combines light-weight rigidity with high thermal efficiency. Operating and storage temperature range is -55°C to $+175^{\circ}\text{C}$. Conservative ratings assure long life.

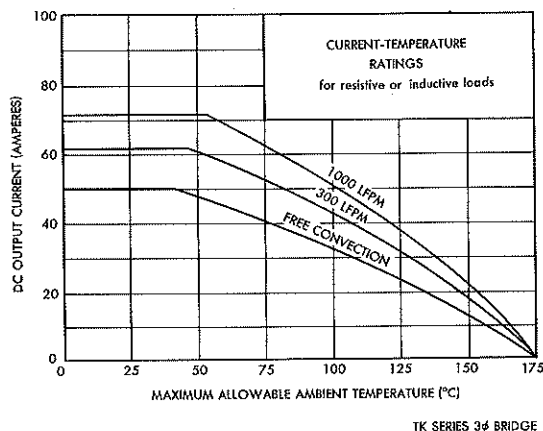
MAXIMUM RATINGS

D.C. SPECIFICATIONS @ 25°C

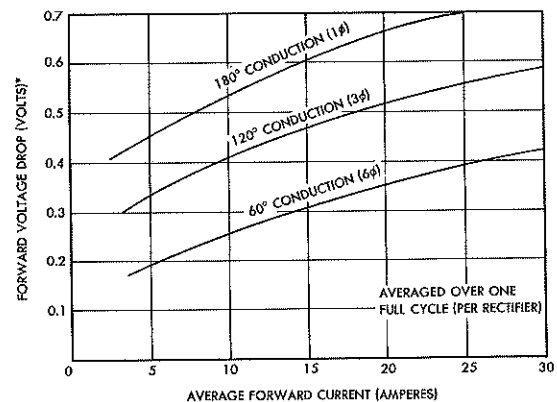
TYPE	DC OUTPUT VOLTAGE (VOLTS) (1)	PIV PER ARM (VOLTS)	DC OUTPUT CURRENT @ 55°C (AMPS) (1) (2)	MAX. FORWARD VOLTAGE DROP PER ARM (3) (VOLTS @ 20 Adc)	MAX. INVERSE CURRENT @ RATED PIV (4) (mA dc)
TK6F05E1A1	44.5	50	47	1.5	30
TK6F10E1A1	92.5	100	47	1.5	30
TK6F15E1A1	140	150	47	1.5	30
TK6F20E1A1	188	200	47	1.5	30
TK6F25E1A1	236	250	47	1.5	30
TK6F30E1A1	284	300	47	1.5	30
TK6F35E1A1	331	350	47	1.5	30
TK6F40E1A1	379	400	47	1.5	30
TK6F50E1A1	475	500	47	1.5	30
TK6F60E1A1	570	600	47	1.5	30

- (1) Resistive or inductive load assuming sinusoidal input waveform.
- (2) For current ratings at other temperatures, see rating curve below. For capacitive or counter-e.m.f. loads derate to 80% of resistive-inductive load rating.
- (3) Testing each rectifier circuit element or arm individually.
- (4) Measured between the AC input terminals with either voltage polarity under no-load conditions.

CURRENT RATINGS



FORWARD CHARACTERISTICS



TE-1343C
8-59

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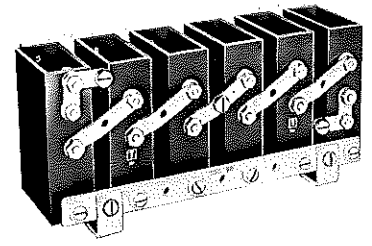
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HEAVY DUTY STACKS

TH SERIES 1 ϕ HALF WAVE



(1-X-1-H)

Transitron's heavy duty TH series silicon rectifier stacks are designed to meet the demanding requirements of industrial and military applications where high current output and small physical size are important. The rugged design affords virtually complete protection to the hermetically sealed cells while the light-weight construction and high thermal efficiency assure reliable operation over the temperature range -55°C to $+175^{\circ}\text{C}$. Conservative ratings assure long life.

MAXIMUM RATINGS

D.C. SPECIFICATIONS @ 25°C

TYPE	DC OUTPUT VOLTAGE (VOLTS) (1)	PIV PER ARM (VOLTS)	DC OUTPUT CURRENT @ 55°C (AMPS) (1)(2)	MAX. FORWARD VOLTAGE DROP PER ARM (3) (VOLTS @ 45 A dc)	MAX. INVERSE CURRENT @ RATED PIV (4) (mA dc)
TH1H05G1A1	15.5	50	40	1.5	30
TH1H10G1A1	31	100	40	1.5	30
TH1H15G1A1	47	150	40	1.5	30
TH1H20G1A1	63	200	40	1.5	30
TH1H25G1A1	79	250	40	1.5	30
TH1H30G1A1	95	300	40	1.5	30
TH1H35G1A1	110	350	40	1.5	30
TH1H40G1A1	126	400	40	1.5	30
(5) TH2H25G1A2	158	500	40	3.0	30
(5) TH2H30G1A2	190	600	40	3.0	30
(5) TH2H35G1A2	222	700	40	3.0	30
(5) TH2H40G1A2	254	800	40	3.0	30
TH3H30G1A3	284	900	40	4.5	30
TH3H35G1A3	332	1050	40	4.5	30
TH3H40G1A3	380	1200	40	4.5	30
(5) TH4H35G1A4	443	1400	40	6.0	30
(5) TH4H40G1A4	506	1600	40	6.0	30
TH5H35G1A5	554	1750	40	7.5	30
TH5H40G1A5	634	2000	40	7.5	30
(5) TH6H30G1A6	570	1800	40	9.0	30
(5) TH6H35G1A6	665	2100	40	9.0	30
(5) TH6H40G1A6	760	2400	40	9.0	30

(1) Resistive or inductive load assuming sinusoidal input waveform.

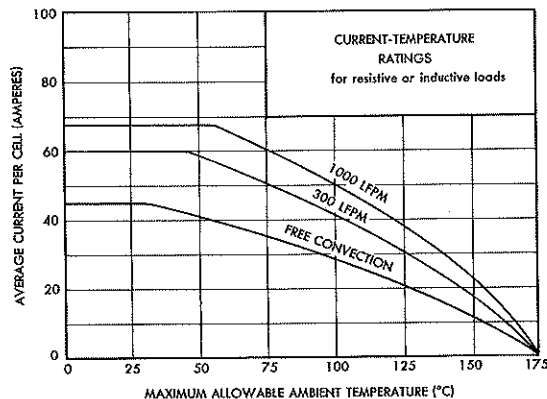
(2) For current ratings at other temperatures, see rating curve below. For capacitive or counter-e.m.f. loads derate to 80% of resistive-inductive load rating.

(3) Testing each rectifier circuit element or arm individually.

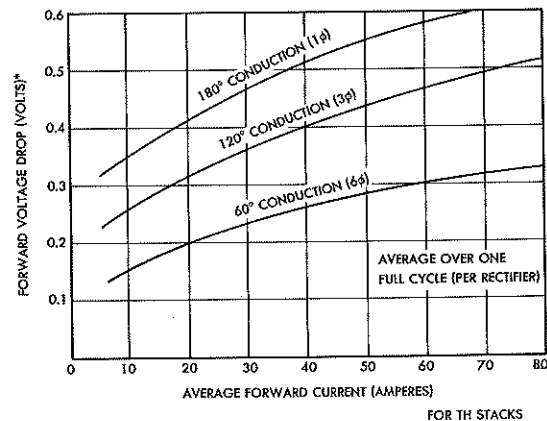
(4) Measured between the AC input terminals with either voltage polarity under no-load conditions.

(5) Half wave stacks containing even number of rectifiers—may be used as doublers or as two arms of a bridge circuit at one-half PIV rating.

CURRENT RATINGS



FORWARD CHARACTERISTICS

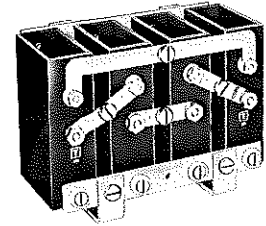


TE-1343D
8-59

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(4-1-1-B)

Transitron's heavy duty TH series silicon rectifier stacks are designed to meet the demanding requirements of industrial and military applications where high current output and small physical size are important. The rugged design affords virtually complete protection to the hermetically sealed cells while the light-weight construction and high thermal efficiency assure reliable operation over the temperature range -55°C to $+175^{\circ}\text{C}$. Conservative ratings assure long life.

MAXIMUM RATINGS

D.C. SPECIFICATIONS @ 25°C

TYPE	DC OUTPUT VOLTAGE (VOLTS) (1)	PIV PER ARM (VOLTS)	DC OUTPUT CURRENT @ 55°C (AMPS) (1)(2)	MAX. FORWARD VOLTAGE DROP PER ARM (3) (VOLTS @ 45 Adc)	MAX. INVERSE CURRENT RATED PIV (4) (mA dc)
TH4B05G1A1	27.5	50	78	1.5	60
TH4B10G1A1	59.5	100	78	1.5	60
TH4B15G1A1	91	150	78	1.5	60
TH4B20G1A1	123	200	78	1.5	60
TH4B25G1A1	155	250	78	1.5	60
TH4B30G1A1	187	300	78	1.5	60
TH4B35G1A1	219	350	78	1.5	60
TH4B40G1A1	250	400	78	1.5	60

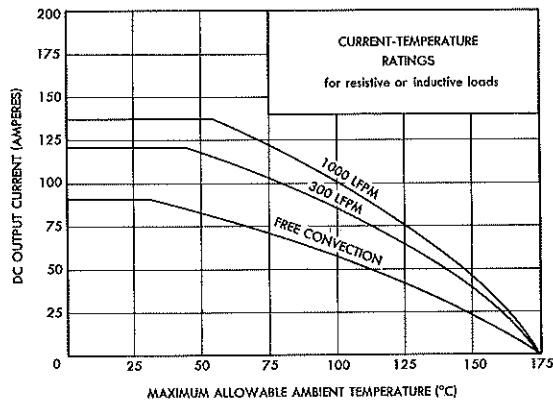
(1) Resistive or inductive load assuming sinusoidal input waveform.

(2) For current ratings at other temperatures, see rating curve below. For capacitive or counter-e.m.f. loads derate to 80% of resistive-inductive load rating.

(3) Testing each rectifier circuit element or arm individually.

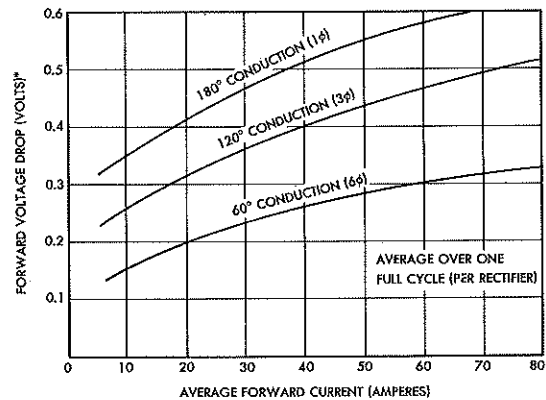
(4) Measured between the AC input terminals with either voltage polarity under no-load conditions.

CURRENT RATINGS



TH SERIES 1 ϕ BRIDGE

FORWARD CHARACTERISTICS



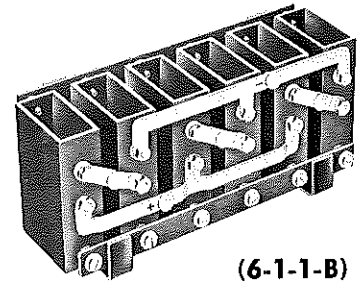
FOR TH STACKS

TE-1343E
8-59

Transitron

HEAVY DUTY STACKS

TH SERIES 3 ϕ BRIDGE



(6-1-1-B)

Transitron's heavy duty TH series silicon rectifier stacks are designed to meet the demanding requirements of industrial and military applications where high current output and small physical size are important. The rugged design affords virtually complete protection to the hermetically sealed cells while the light-weight construction and high thermal efficiency assure reliable operation over the temperature range -55°C to $+175^{\circ}\text{C}$. Conservative ratings assure long life.

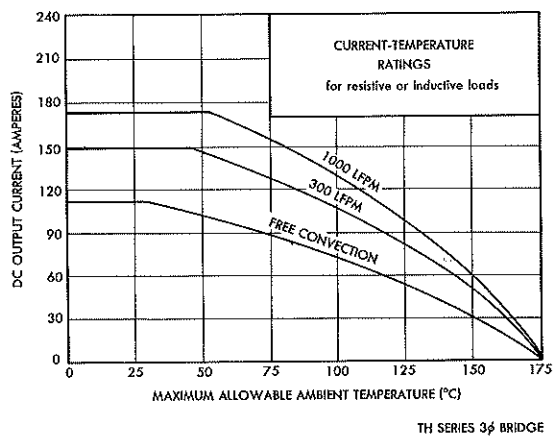
MAXIMUM RATINGS

D.C. SPECIFICATIONS @ 25°C

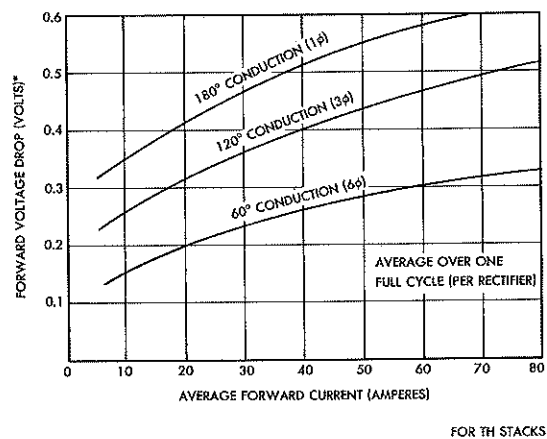
TYPE	DC OUTPUT VOLTAGE (VOLTS) (1)	PIV PER ARM (VOLTS)	DC OUTPUT CURRENT @ 55°C (AMPS) (1)(2)	MAX. FORWARD VOLTAGE DROP PER ARM (3) (VOLTS @ 45 Adc)	MAX. INVERSE CURRENT @ RATED PIV (4) (mA dc)
TH6F05G1A1	45	50	96	1.5	90
TH6F10G1A1	93	100	96	1.5	90
TH6F15G1A1	140	150	96	1.5	90
TH6F20G1A1	188	200	96	1.5	90
TH6F25G1A1	236	250	96	1.5	90
TH6F30G1A1	283	300	96	1.5	90
TH6F35G1A1	332	350	96	1.5	90
TH6F40G1A1	379	400	96	1.5	90

- (1) Resistive or inductive load assuming sinusoidal input waveform.
- (2) For current ratings at other temperatures, see rating curve below. For capacitive or counter-e.m.f. loads derate to 80% of resistive-inductive load rating.
- (3) Testing each rectifier circuit element or arm individually.
- (4) Measured between the AC input terminals with either voltage polarity under no-load conditions.

CURRENT RATINGS



FORWARD CHARACTERISTICS



TE-1343F
8-59

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Transitron

PB-19
March 5, 1958

GENERAL PURPOSE SILICON CARTRIDGE RECTIFIERS

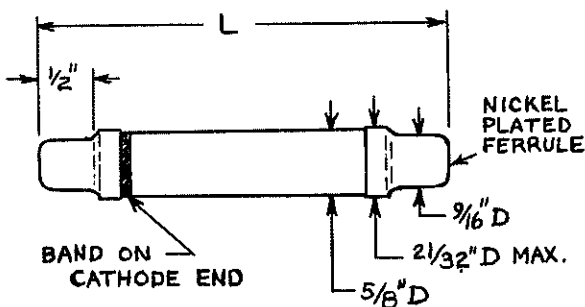
Transitron's general purpose silicon cartridge rectifiers are efficient conservatively rated high voltage half wave elements (multi-cell) in oil-filled vitreous ceramic cartridges with 9/16" fuse-type ferrule terminals. This series is designed to operate at temperatures up to 150°C, meeting the requirements of military, industrial and commercial users.

Specifications @ 25°C

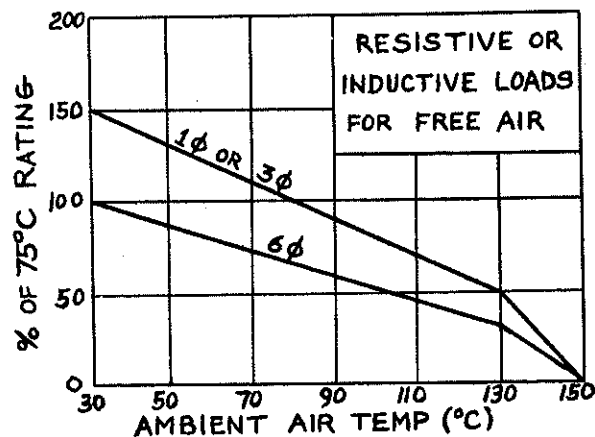
TYPE	Length "L" (IN)	PEAK INVERSE VOLTAGE (VOLTS)	AVERAGE FORWARD CURRENT @ 75°C (ma)*	PEAK RECURRENT FORWARD CURRENT (ma)	MAX. FORWARD VOLTAGE AT RATED DC CURRENT (volts)	MAX. INVERSE DC CURRENT AT RATED PIV
1N1133	2½	1500	75	500	15.0	0.025
1N1134	1-13/16	1500	100	650	7.5	0.025
1N1135	2½	1800	65	500	18.0	0.025
1N1136	1-13/16	1800	85	500	9.0	0.025
1N1137	2½	2400	50	400	24.0	0.025
1N1138	1-13/16	2400	60	400	12.0	0.025
1N1139	4-5/16	3600	65	500	27.0	0.025
1N1140	2½	3600	65	500	18.0	0.025
1N1141	4-5/16	4800	50	400	36.0	0.025
1N1142	2½	4800	60	400	24.0	0.025
1N1143	4-5/16	6000	50	400	45.0	0.025
1N1143A	4-5/16	6000	65	500	30.0	0.025
1N1144	6-1/16	7200	50	400	54.0	0.025
1N1145	4-5/16	7200	60	400	36.0	0.025
1N1146	6-1/16	8000	45	400	60.0	0.025
1N1147	6-1/16	12000	45	400	60.0	0.025
1N1148	6-1/16	14000	50	400	52.0	0.025
1N1149	6-1/16	16000	45	400	60.0	0.025

*Resistive or inductive load. Derate to 75% for capacitive loads.

MECHANICAL OUTLINE



CURRENT RATING CURVE



Catalog No. 40.29.9A



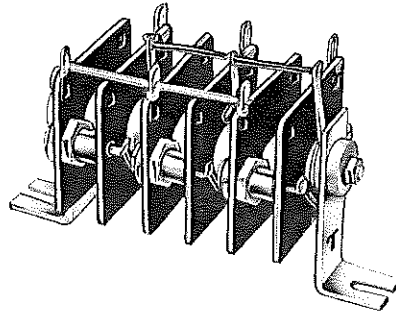
Transitron electronic corporation • wakefield, massachusetts



TECHNICAL DATA AND APPLICATIONS NOTES

for

TD SERIES SILICON RECTIFIER STACKS



TE1342A 5-57

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Catalog No. 46.29.14