



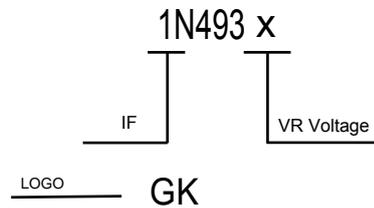
FEATURES

- * Low forward voltage drop
- * High current capability
- * High reliability
- * High surge current capability

MECHANICAL DATA

- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Lead: Axial leads, solderable per MIL-STD-202, method 208 guaranteed
- * Polarity: Color band denotes cathode end
- * Mounting position: Any

VOLTAGE RANGE
50 to 600 Volts
CURRENT
1.0 Ampere



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 25°C ambient temperature unless otherwise specified.
Single phase half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

TYPE NUMBER	1N4933	1N4934	1N4935	1N4936	1N4937	UNITS
Maximum Recurrent Peak Reverse Voltage	50	100	200	400	600	V
Maximum RMS Voltage	35	70	140	280	420	V
Maximum DC Blocking Voltage	50	100	200	400	600	V
Maximum Average Forward Rectified Current	1.0					A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	30					A
Maximum Instantaneous Forward Voltage at 1.0A	1.2					V
Maximum DC Reverse Current Ta=25°C	5.0					μA
at Rated DC Blocking Voltage Ta=100°C	100					μA
Maximum Reverse Recovery Time (Note 1)	200					nS
Typical Junction Capacitance (Note 2)	15					pF
Operating and Storage Temperature Range Tj, Tstg	-65 — +150					°C

NOTES:

1. Reverse Recovery Time test condition:IF=1.0A, VR=30V.
2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

RATING AND CHARACTERISTIC CURVES

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

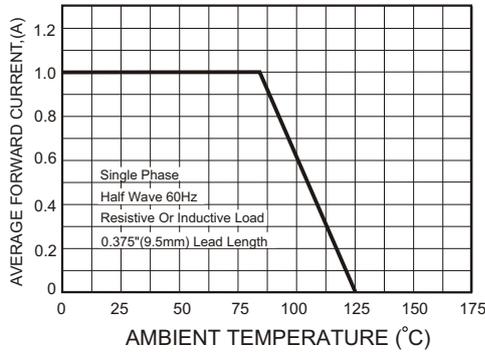


FIG.2-TYPICAL FORWARD CHARACTERISTICS

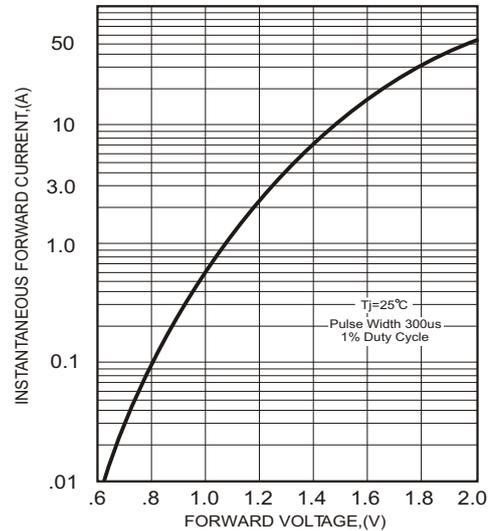
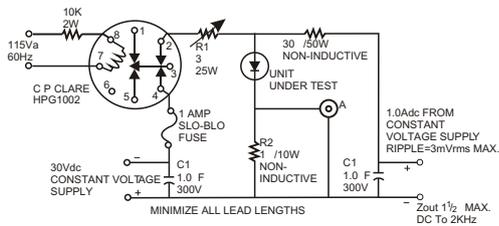


FIG.3- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



A-TEKTRONIX 545A. K PLUG IN
PRE AMP P6000 PROBE OR EQUIVALENT
R1- ADJUSTED FOR 14 BETWEEN POINT 2 OF RELAY AND RECTIFIER INDUCTIVE=3.8 H
R2- TEN 1W 10 1% CARBON CORE IN PARALLEL
 $T_A = 25 \pm 10^\circ\text{C}$ FOR RECTIFIER

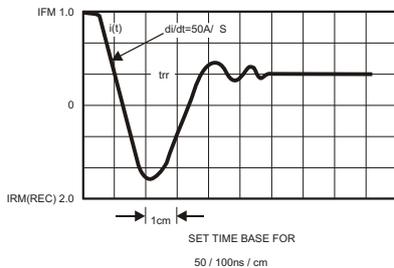


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

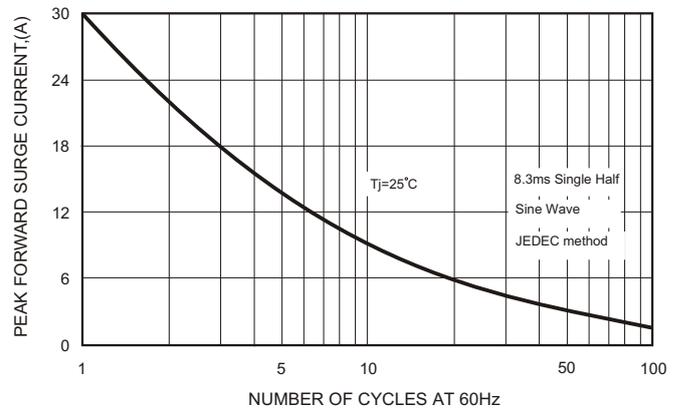


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

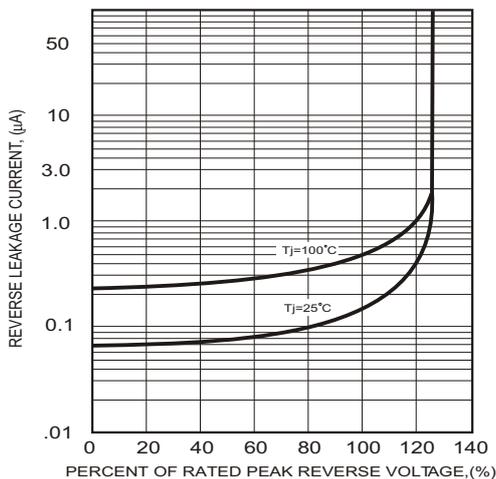
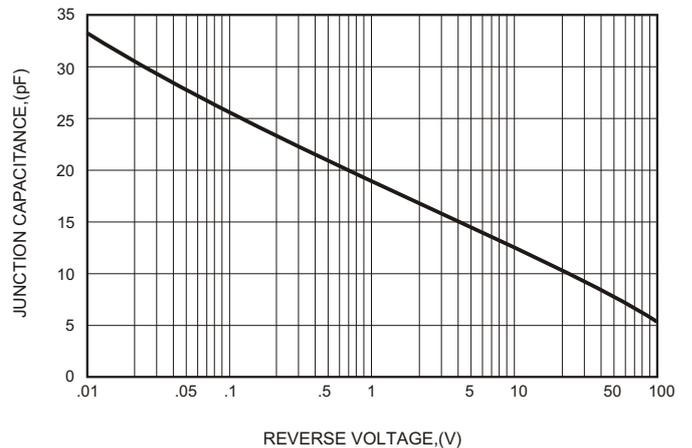
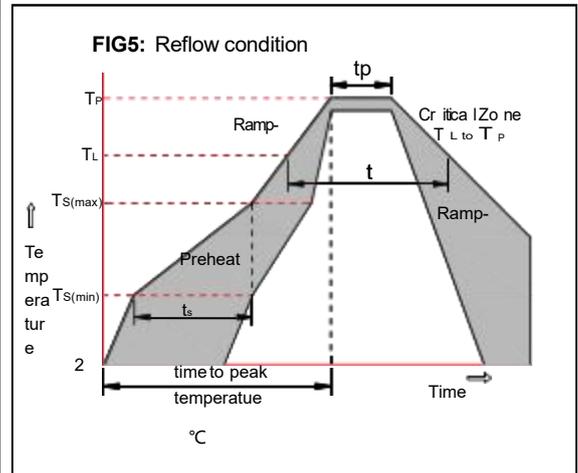


FIG.6-TYPICAL JUNCTION CAPACITANCE



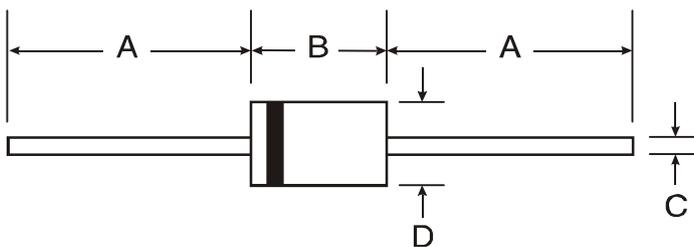
Soldering parameters

Reflow Condition		Pb-Free assembly (see as below)
Pre Heat	-Temperature Min ($T_{s(min)}$)	+150 °C
	-Temperature Max($T_{s(max)}$)	+200 °C
	-Time (Min to Max) (ts)	60-180 secs.
Average ramp up rate (Liquid us Temp (T_L) to peak)		3 °C/sec. Max
$T_{s(max)}$ to T_L - Ramp-up Rate		3 °C/sec. Max
Reflow	-Temperature(T_L)(Liquid us)	+217 °C
	-Temperature(t_L)	60-150 secs.
Peak Temp (T_P)		+260(+0/-5) °C
Time within 5 °C of actual Peak Temp (t_p)		30 secs. Max
Ramp-down Rate		6 °C/sec. Max
Time 25 °C to Peak Temp (T_P)		8 min. Max
Do not exceed		+260 °C



Package Dimensions & Suggested Pad Layout

DO-41 Plastic



DO-41 Plastic		
Dim	Min	Max
A	25.40	-
B	4.20	5.20
C	0.70	0.90
D	2.00	2.70
All Dimensions in mm		