

ULTRA FAST RECOVERY RECTIFIERS

DO-4, DO-5, TO-3 HERMETIC SEALED AND MILITARY

FEATURES:

- 15 Amp to 70 Amp
- 50V to 800 V
- 35 ns to 70 ns
- High Temperature Operation
- Metallurgically Bonded

DESCRIPTION

These hermetically sealed rectifiers are used in switching power supplies and regulators up to 800 V. The ultra high speed characteristics and the availability of high voltage are not commonly found together. These features are a most useful characteristic in military applications where derating is a requirement.

MAXIMUM RATINGS

25 AMP. DO4

TYPE NUMBER	P _{RV} Volts	V _F Volts	I _b Amps	I _R uA	I _{FSM} Amps	*T _{rr} ns	CASE
SUES701	50	.950	25	20	500	35	DO4
SUES702	100	.950	25	20	500	35	DO4
SUES703	150	.950	25	20	500	35	DO4
SUES704	200	1.25	20	50	500	50	DO4
SUES705	300	1.25	20	50	500	50	DO4
SUES706	400	1.25	20	50	500	50	DO4

50 AMP. DO5

TYPE NUMBER	P _{RV} Volts	V _F Volts	I _b Amps	I _R uA	I _{FSM} Amps	*T _{rr} ns	CASE
SUES501	50	0.95	50	25	700	50	DO5
SUES502	75	0.95	50	25	700	50	DO5
SUES503	100	0.95	50	25	700	50	DO5
SUES504	125	0.95	50	25	700	50	DO5
SUES505	150	0.95	50	25	700	50	DO5

15 AMP. DO4

TYPE NUMBER	P _{RV} Volts	V _F Volts	I _b Amps	I _R uA	I _{FSM} Amps	*T _{rr} ns	CASE
SUES707	500	1.2	15	50	200	50	DO4
SUES708	600	1.2	15	50	200	50	DO4
SUES709	700	1.5	15	50	200	70	DO4
SUES710	800	1.5	15	20	200	70	DO4

70 AMP. DO5

TYPE NUMBER	P _{RV} Volts	V _F Volts	I _b Amps	I _R uA	I _{FSM} Amps	*T _{rr} ns	CASE
SUES801	50	.975	70	25	800	50	DO5
SUES802	100	.975	70	25	800	50	DO5
SUES803	150	.975	70	25	800	50	DO5
SUES804	200	1.25	50	70	700	50	DO5
SUES805	300	1.25	50	70	700	50	DO5
SUES806	400	1.25	50	70	700	50	DO5

20 AMP. DO4

TYPE NUMBER	P _{RV} Volts	V _F Volts	I _b Amps	I _R uA	I _{FSM} Amps	*T _{rr} ns	CASE
** 1N5812	50	0.95	20	10	250	35	DO4
1N5813	75	0.95	20	10	250	35	DO4
** 1N5814	100	0.95	20	10	250	35	DO4
1N5815	125	0.95	20	10	250	35	DO4
** 1N5816	150	0.95	20	10	250	35	DO4

35 AMP. DO5

TYPE NUMBER	P _{RV} Volts	V _F Volts	I _b Amps	I _R uA	I _{FSM} Amps	*T _{rr} ns	CASE
SUES807	500	1.25	35	100	400	50	DO5
SUES808	600	1.25	35	100	400	50	DO5
SUES809	700	1.25	35	100	400	70	DO5
SUES810	800	1.5	35	100	400	70	DO5

30 AMP. TO3

TYPE NUMBER	P _{RV} Volts	V _F Volts	I _b Amps	I _R uA	I _{FSM} Amps	*T _{rr} ns	CASE
SUES601	50	.915	30	25	800	50	TO3
SUES602	100	.915	30	25	800	50	TO3
SUES603	150	.915	30	25	800	50	TO3
SUES604	200	1.2	30	70	800	50	TO3
SUES605	300	1.2	30	70	800	50	TO3
SUES606	400	1.2	30	70	800	50	TO3

30 AMP. TO3 (DUAL) - PER LEG

TYPE NUMBER	P _{RV} Volts	V _F Volts	I _b Amps	I _R uA	I _{FSM} Amps	*T _{rr} ns	CASE
SUES2601	50	.930	15	20	500	35	TO3
SUES2602	100	.930	15	20	500	35	TO3
SUES2603	150	.930	15	20	500	35	TO3
SUES2604	200	1.25	15	50	500	50	TO3
SUES2605	300	1.25	15	50	500	50	TO3
SUES2606	400	1.25	15	50	500	50	TO3

25 AMP. TO3

TYPE NUMBER	P _{RV} Volts	V _F Volts	I _b Amps	I _R uA	I _{FSM} Amps	*T _{rr} ns	CASE
SUES607	500	1.25	25	100	400	50	TO3
SUES608	600	1.25	25	100	400	50	TO3
SUES609	700	1.5	25	100	400	70	TO3
SUES610	800	1.5	25	100	400	70	TO3

25 AMP. TO3 (DUAL) - PER LEG

TYPE NUMBER	P _{RV} Volts	V _F Volts	I _b Amps	I _R uA	I _{FSM} Amps	*T _{rr} ns	CASE
SUES2607	500	1.2	12.5	70	200	50	TO3
SUES2608	600	1.2	12.5	70	200	50	TO3
SUES2609	700	1.2	12.5	70	200	70	TO3
SUES2610	800	1.5	12.5	70	200	70	TO3

70 AMP. DO5

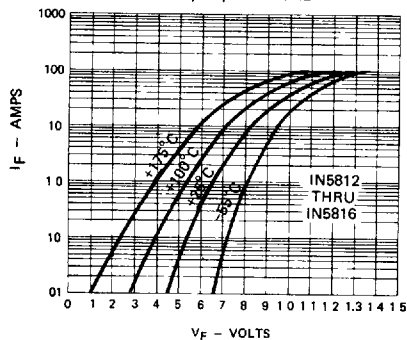
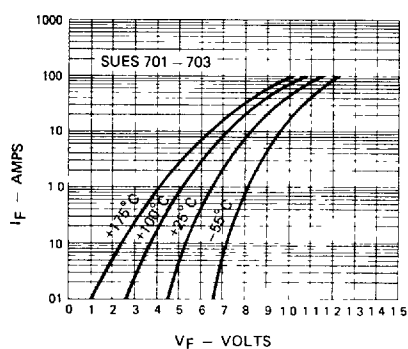
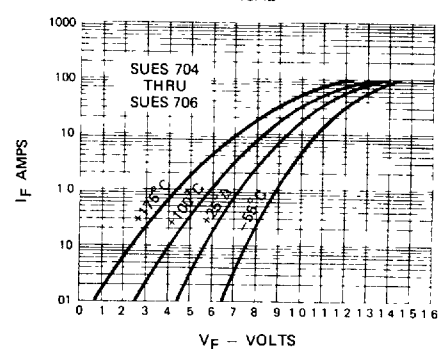
TYPE NUMBER	P _{RV} Volts	V _F Volts	I _b Amps	I _R uA	I _{FSM} Amps	*T _{rr} ns	CASE
1N6304	50	.975	70	30	800	50	DO5
1N6305	100	.975	70	30	800	50	DO5
1N6306	150	.975	70	30	800	50	DO5

* T_{rr} RATIO .5/1-.25

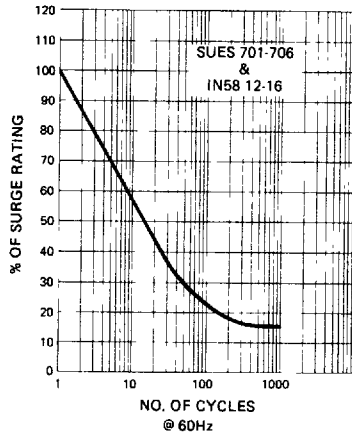
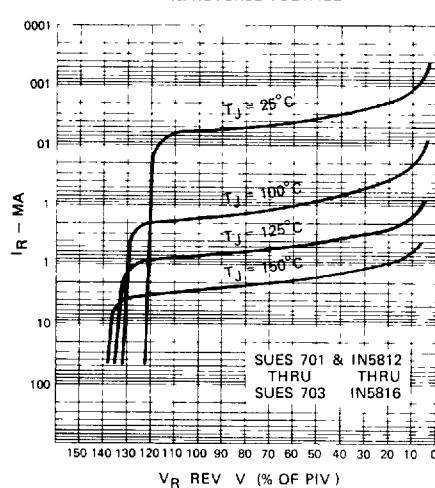
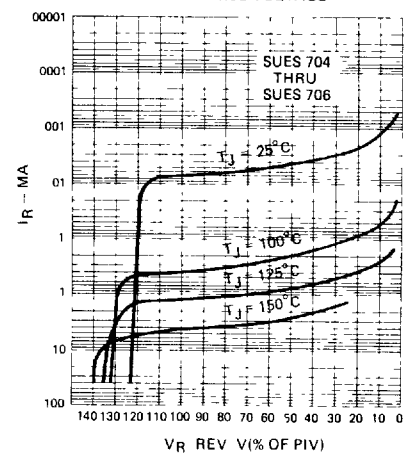
** AVAILABLE AS JAN, JTX AND JTXV TO MIL-S-19500/478A

ULTRA FAST RECOVERY RECTIFIERS

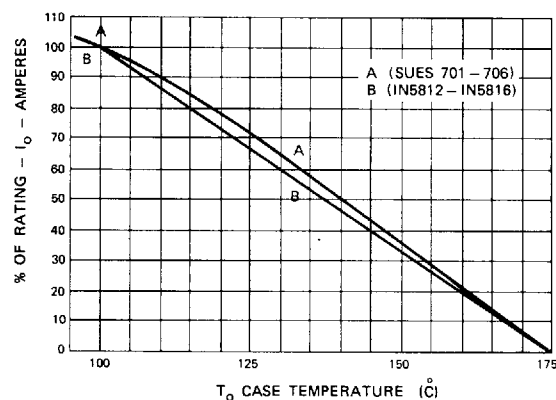
DO-4, DO-5, TO-3 HERMETIC SEALED AND MILITARY (IN5812 - IN5816, 701-706)

 V_F / I_F TYPICAL V_F / I_F TYPICAL V_F / I_F TYPICAL

MAXIMUM SURGE CAPABILITY

TYPICAL REVERSE CURRENT
vs. REVERSE VOLTAGETYPICAL REVERSE CURRENT
vs REVERSE VOLTAGE

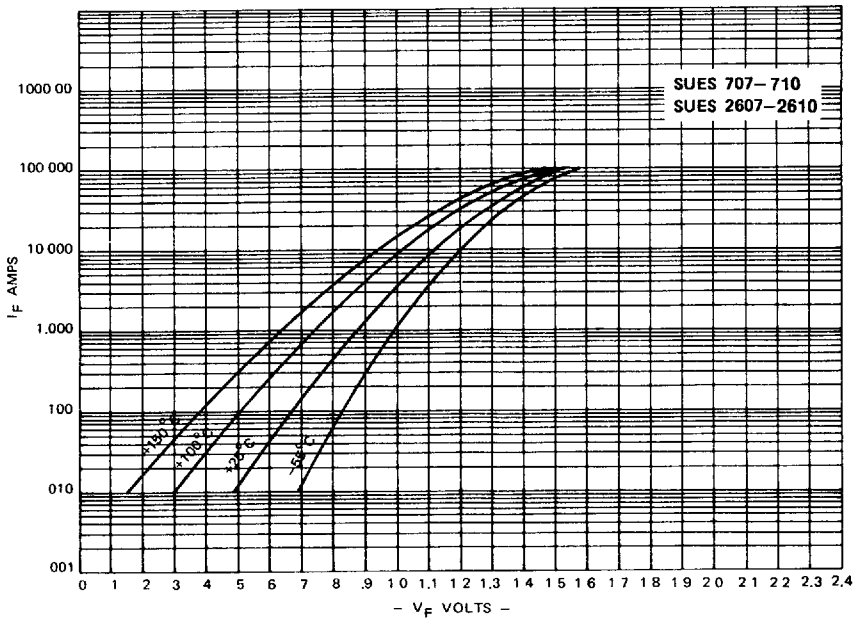
OUTPUT CURRENT vs CASE TEMPERATURE



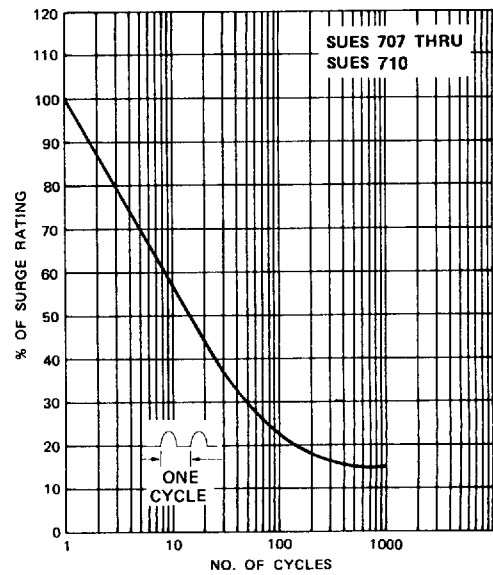
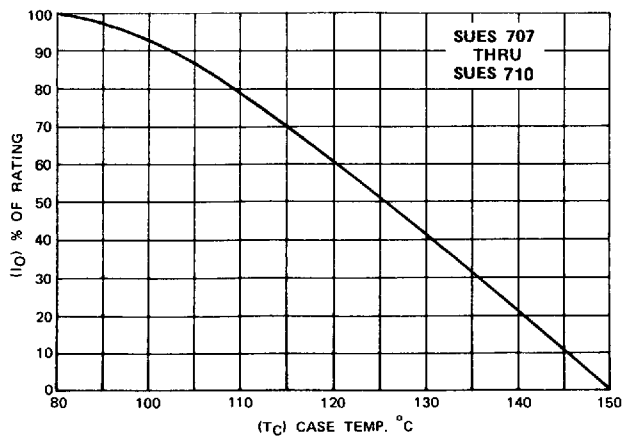
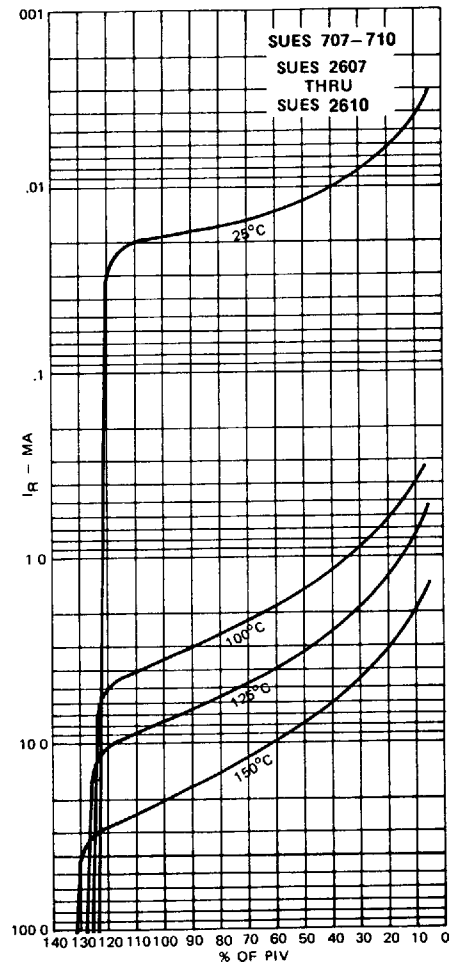
ULTRA FAST RECOVERY RECTIFIERS

DO-4, DO-5, TO-3 HERMETIC SEALED AND MILITARY

(707-710, 2607-2610)

 V_F/I_F TYPICAL

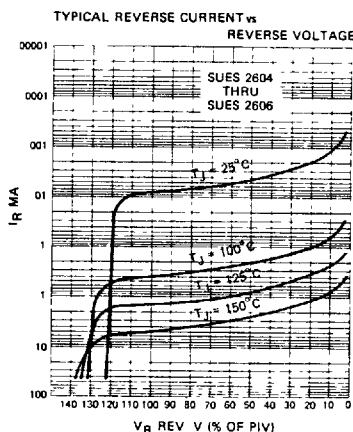
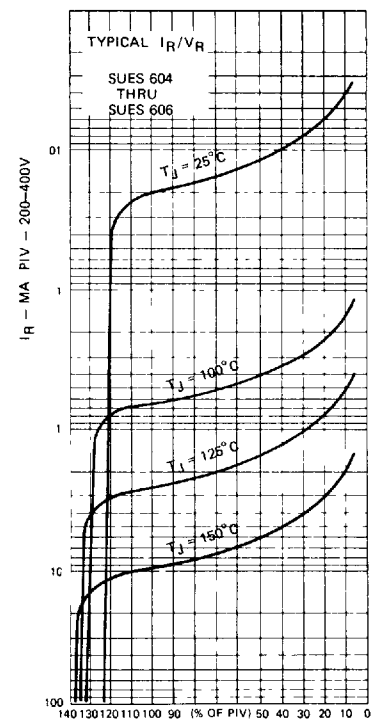
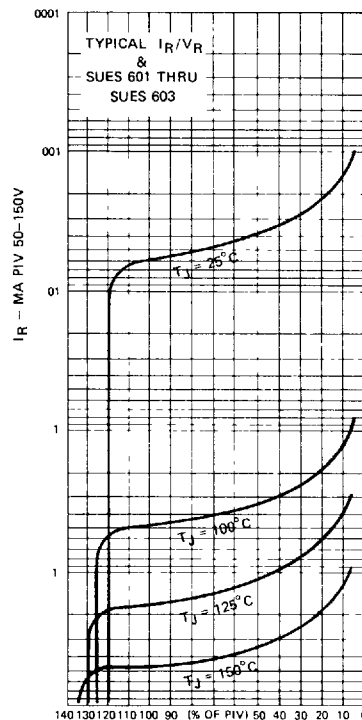
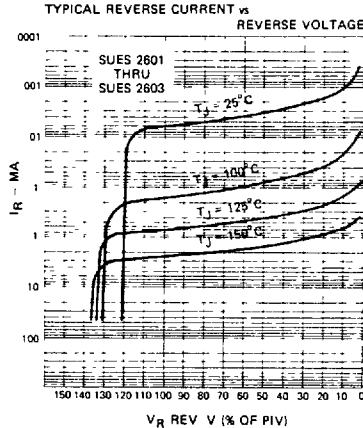
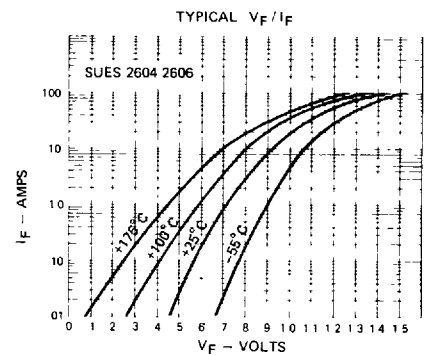
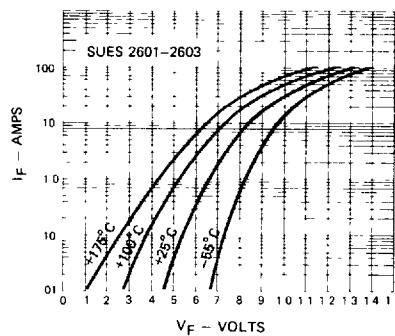
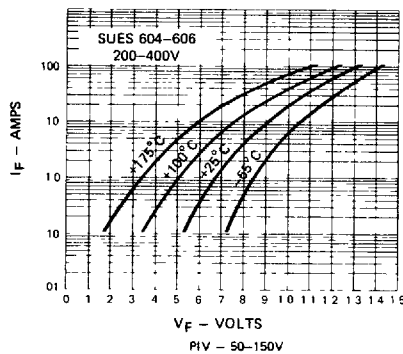
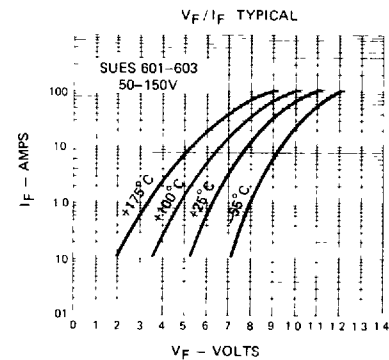
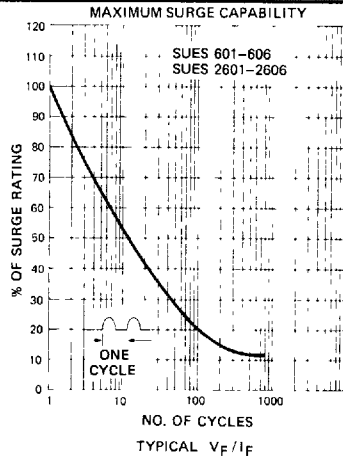
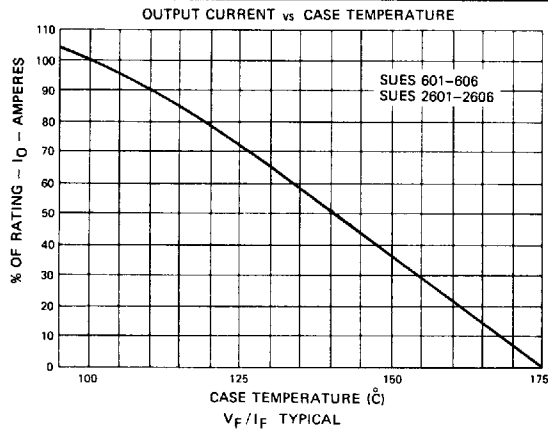
MAXIMUM SURGE CAPABILITY

OUTPUT CURRENT
vs.
CASE TEMPERATURETYPICAL REVERSE CURRENT
vs.
REVERSE VOLTAGE

ULTRA FAST RECOVERY RECTIFIERS

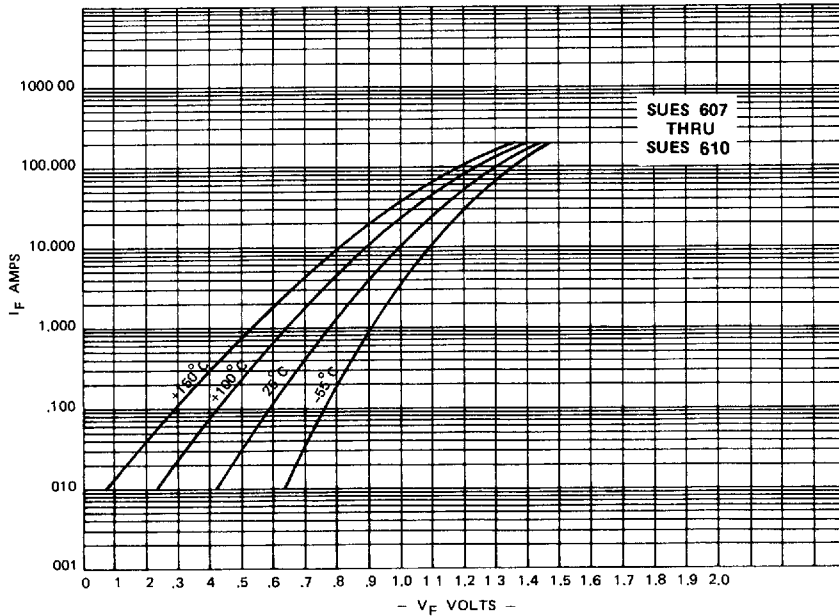
DO-4, DO-5, TO-3 HERMETIC SEALED AND MILITARY

(601-606, 2601-2606)

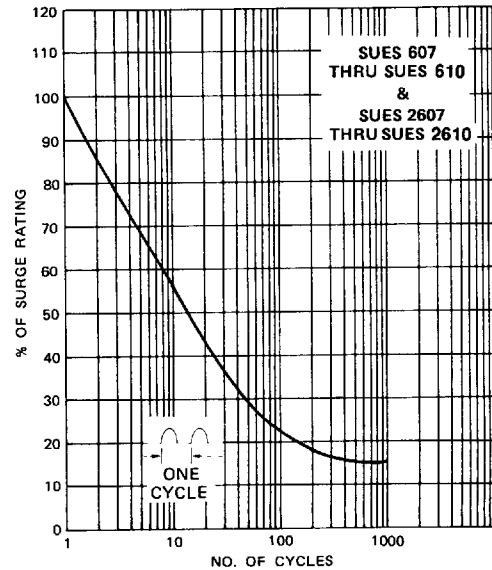
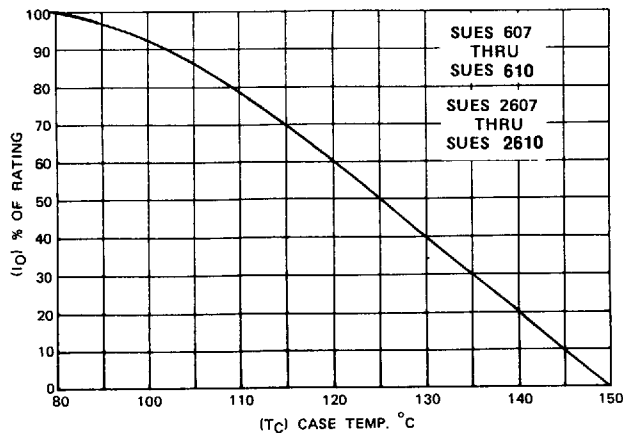
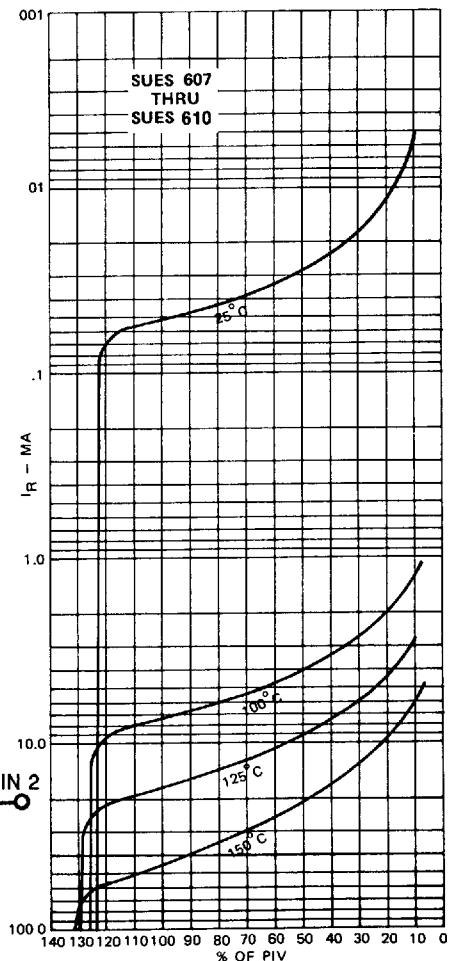


ULTRA FAST RECOVERY RECTIFIERS

DO-4, DO-5, TO-3 HERMETIC SEALED AND MILITARY (607-610, 2607-2610)

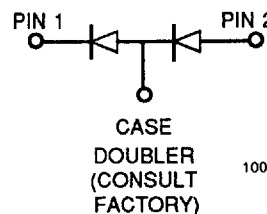
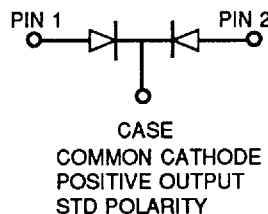
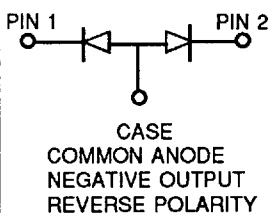
 V_F/I_F TYPICAL

MAX SURGE

OUTPUT CURRENT
vs.
CASE TEMPERATURETYPICAL REVERSE CURRENT
vs.
REVERSE VOLTAGE

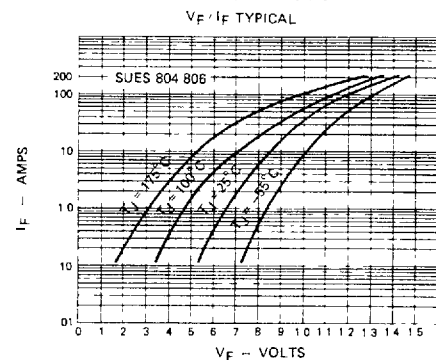
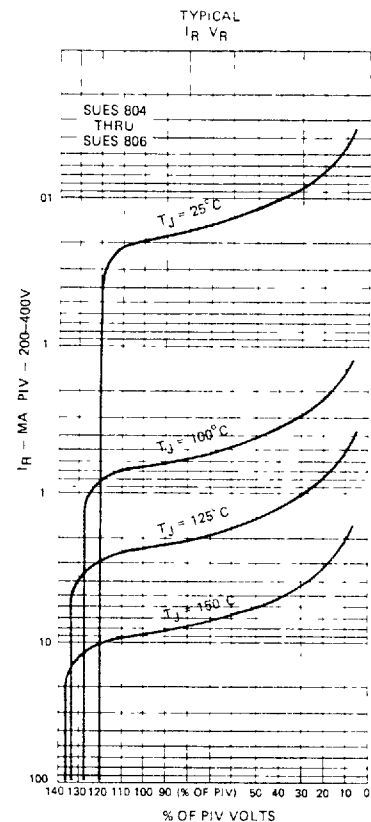
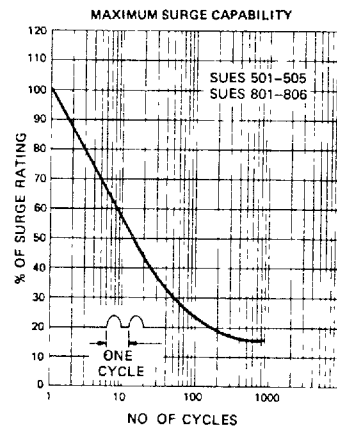
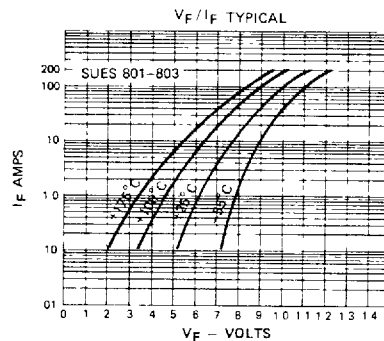
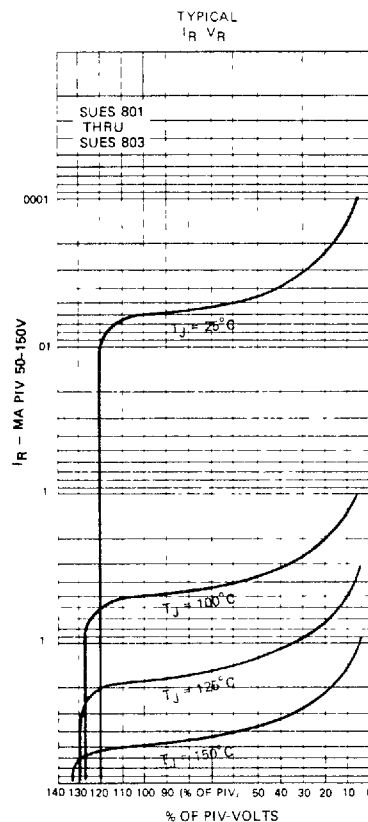
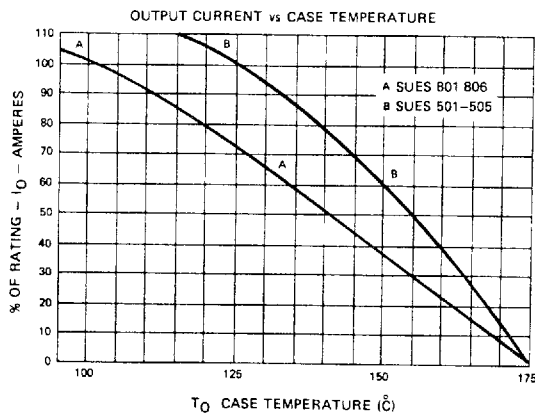
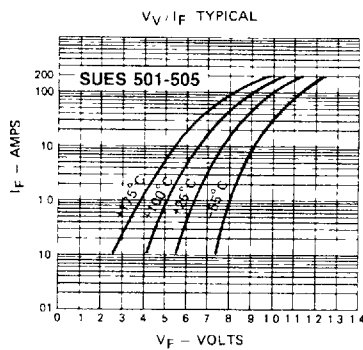
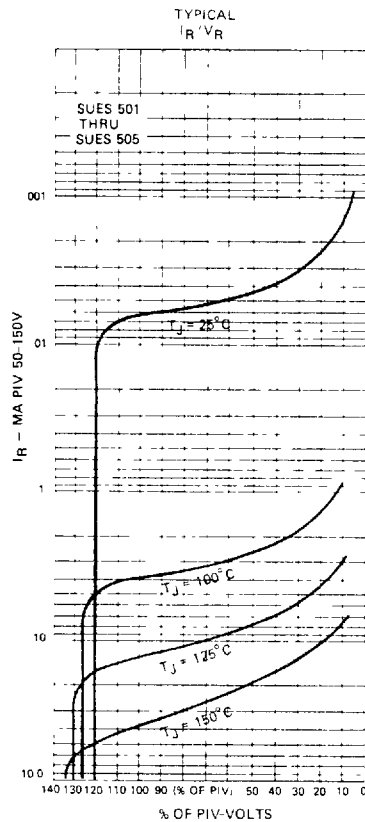
NOTES:

- STANDARD POLARITY IS CATHODE COMMON TO CASE
- ADD SUFFIX LTR "R" FOR ANODE COMMON TO CASE
- SUES2601 SERIES ARE DUAL CHIP CENTER TAP DEVICES WITH CASE COMMON



ULTRA FAST RECOVERY RECTIFIERS

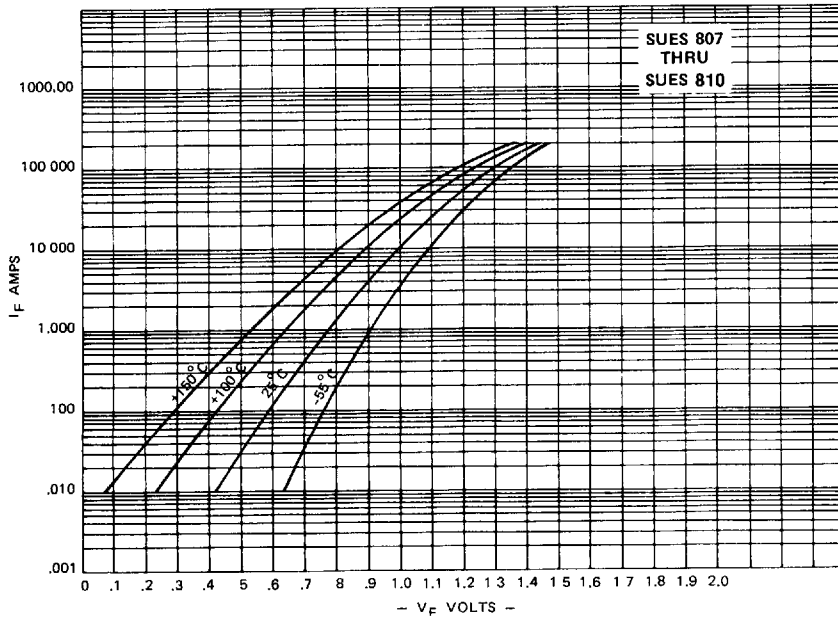
DO-4, DO-5, TO-3 HERMETIC SEALED AND MILITARY (501-505, 801-806)



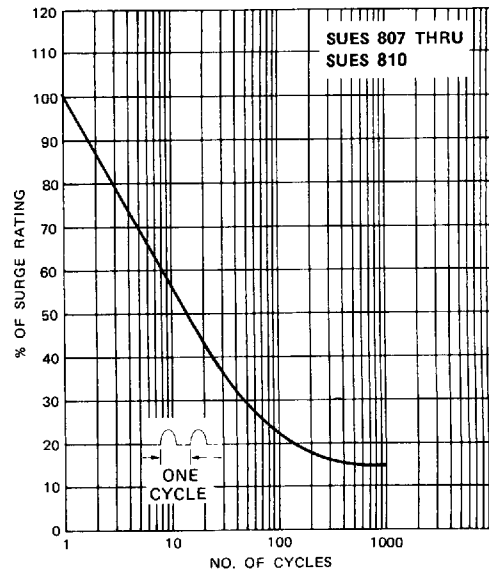
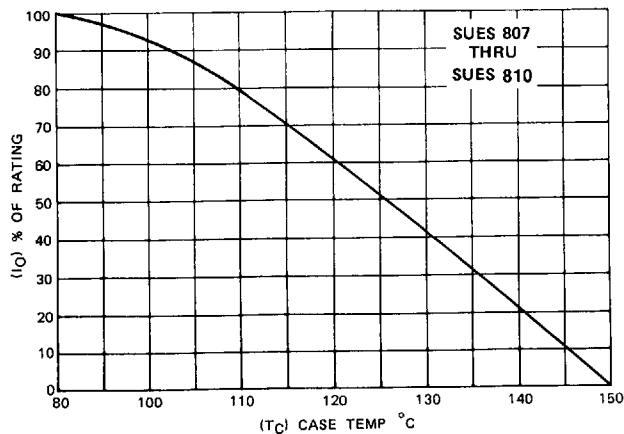
ULTRA FAST RECOVERY RECTIFIERS

DO-4, DO-5, TO-3 HERMETIC SEALED AND MILITARY

(807-810)

 V_F/I_F TYPICAL

MAX SURGE CAPABILITY

OUTPUT CURRENT
vs.
CASE TEMPERATURETYPICAL REVERSE CURRENT
vs.
REVERSE VOLTAGE