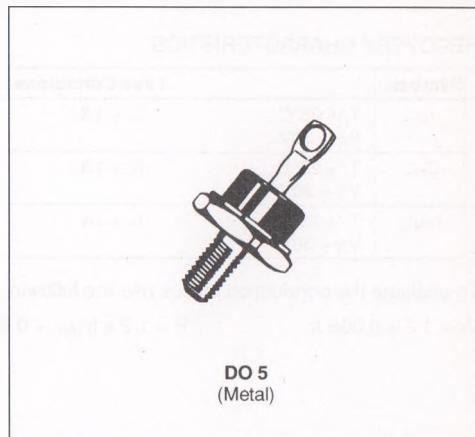


FAST RECOVERY RECTIFIER DIODES

- FAST RECOVERY TIME
- LOW FORWARD RECOVERY TIME
- AVAILABLE UP TO 600V

APPLICATIONS

- DC AND AC MOTOR CONTROL
- SWITCHMODE POWER SUPPLY
- HIGH FREQUENCY CHOPPERS
- HIGH FREQUENCY RECTIFIERS


ABSOLUTE RATINGS (limiting values)

Symbol	Parameter	Value	Unit
I _{FRM}	Repetitive Peak Forward Current	200	A
I _{F (AV)}	Average Forward Current	20	A
I _{FSM}	Surge non Repetitive Forward Current	225	A
P _{tot}	Power Dissipation	35	W
T _{stg} T _j	Storage and Junction Temperature Range	– 65 to 150	°C

Symbol	Parameter	1N					BYX 63-600	Unit
		3899	3900	3901	3902	3903		
V _{RRM}	Repetitive Peak Reverse Voltage	50	100	200	300	400	600	V

THERMAL RESISTANCE

Symbol	Parameter	Value	Unit
R _{th (j-c)}	Junction-case	1.5	°C/W

ELECTRICAL CHARACTERISTICS**STATIC CHARACTERISTICS**

Symbol	Test Conditions		Min.	Typ.	Max.	Unit
I_R	$T_j = 25^\circ C$	$V_R = V_{RRM}$			50	μA
	$T_j = 100^\circ C$				6	mA
V_F	$T_j = 25^\circ C$	$I_F = 20A$			1.4	V

RECOVERY CHARACTERISTICS

Symbol	Test Conditions			Min.	Typ.	Max.	Unit
t_{rr}	$T_j = 25^\circ C$	$I_F = 1A$	$di_F/dt = - 15A/\mu s$			200	ns
Q_{rr}	$V_R = 30V$					0.3	μC
I_{RM}	$V_R = 30V$	$I_F = 1A$	$di_F/dt = - 15A/\mu s$			3	A

To evaluate the conduction losses use the following equations :

$$V_F = 1.2 + 0.008 I_F \quad P = 1.2 \times I_{F(AV)} + 0.008 I_{F(RMS)}^2$$