

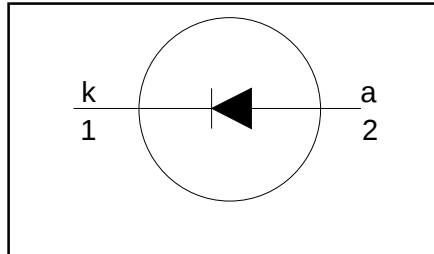
Damper diode fast, high-voltage

BY359F-1500, BY359F-1500S

FEATURES

- Low forward volt drop
- Fast switching
- Soft recovery characteristic
- High thermal cycling performance
- Isolated mounting tab

SYMBOL



QUICK REFERENCE DATA

$V_R = 1500 \text{ V}$
$V_F \leq 1.8 \text{ V} / 2 \text{ V}$
$I_{F(RMS)} = 15.7 \text{ A}$
$I_{FSM} \leq 60 \text{ A}$
$t_{rr} \leq 600 \text{ ns} / 350 \text{ ns}$

GENERAL DESCRIPTION

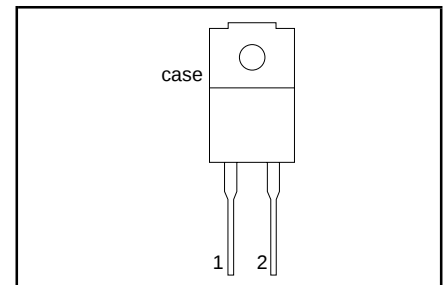
Glass-passivated double diffused rectifier diode featuring low forward voltage drop, fast reverse recovery and soft recovery characteristic. The device is intended for use in TV receivers and PC monitors.

The BY359F series is supplied in the conventional leaded SOD100 package.

PINNING

PIN	DESCRIPTION
1	cathode
2	anode
tab	isolated

SOD100



LIMITING VALUES

Limiting values in accordance with the Absolute Maximum System (IEC 134).

SYMBOL	PARAMETER	CONDITIONS	MIN.	MAX.	UNIT
V_{RSM}	Peak non-repetitive reverse voltage		-	1500	V
V_{RRM}	Peak repetitive reverse voltage		-	1500	V
V_{RWM}	Crest working reverse voltage		-	1300	V
$I_{F(peak)}$	Peak forward current	16-32kHz TV 31-70kHz monitor	-	10	A
		BY359F-1500 BY359F-1500S	-	7	A
$I_{F(RMS)}$	RMS forward current		-	15.7	A
I_{FRM}	Peak repetitive forward current	sinusoidal; $a = 1.57$	-	60	A
I_{FSM}	Peak non-repetitive forward current	$t = 10 \text{ ms}$ $t = 8.3 \text{ ms}$ sinusoidal; $T_j = 150^\circ\text{C}$ prior to surge; with reapplied $V_{RWM(max)}$	-	60	A
			-	66	A
T_{stg}	Storage temperature		-40	150	$^\circ\text{C}$
T_j	Operating junction temperature		-	150	$^\circ\text{C}$

THERMAL RESISTANCES

SYMBOL	PARAMETER	CONDITIONS	MIN.	TYP.	MAX.	UNIT
$R_{th j-hs}$	Thermal resistance junction to heatsink	with heatsink compound	-	-	4.8	K/W
		without heatsink compound	-	-	5.9	K/W
$R_{th j-a}$	Thermal resistance junction to ambient	in free air.	-	55	-	K/W