

Fast Recovery Diode (Non-isolated package)

FRN300BA60

$I_{FV} = 300A, V_{RRM} = 600V, t_{rr} = 100ns$

SanRex Fast Recovery Diode Module **FRN300BA** is designed for applications requiring fast switching such as Welders, Plasma Cutters, Switch Mode Power Supplies. It is in a Non-Isolated mold package for having better thermal impedance.

Features

- * Very Low Forward Voltage Drop
- * High Surge Current
- * Very Fast Recovery Time

Typical Applications

- * Welders, Plasma Cutters
- * Switch Mode Power Supplies (SMPS)
- * Uninterruptible Power Supplies (UPS)
- * Free Wheeling Diode in Converters

< Maximum Ratings >

($T_j = 25^\circ C$ unless otherwise specified)

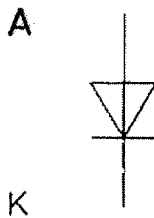
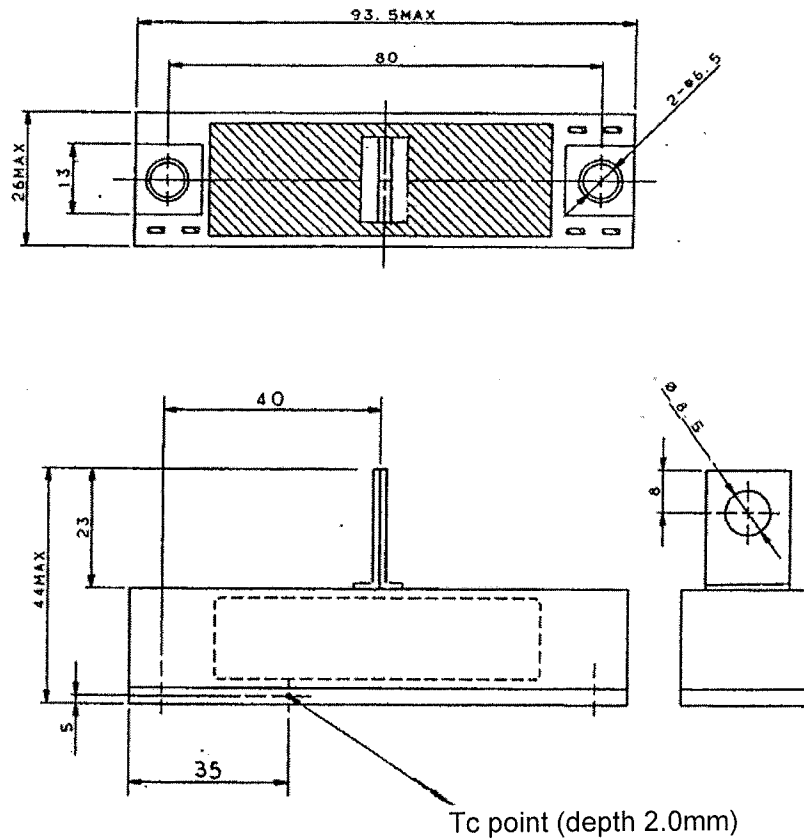
Symbol	Item	Ratings		Unit
V_{RRM}	Repetitive Peak Reverse Voltage		600	V
$V_{R(DC)}$	Reverse D.C. Voltage		480	V

Symbol	Item	Conditions	Ratings	Unit
$I_{F(AV)}$	Average Forward Current	D.C., $T_c = 118^\circ C$	300	A
I_{FSM}	Surge Forward Current	1/2 cycle, 60Hz, Peak value, non-repetitive	4500	A
I^2t	I^2t (for fusing)	Value for one cycle surge current	84000	A ² s
T_j	Junction Temperature		-40 to +150	°C
T_{stg}	Storage Temperature		-40 to +125	°C
	Mounting Torque	Mounting M6	Recommended 25	kgf·cm
		Terminal M8	Recommended 100	
	Mass	Typical Value	170	g

< Electrical Characteristics >

(T_j = 25°C unless otherwise specified)

Symbol	Item	Conditions	Ratings			Unit
			Min.	Typ.	Max.	
I _{RRM}	Repetitive Peak Reverse Current	V _R = V _{RRM} , T _j = 125°C		0.6	3	mA
V _{FM}	Forward Voltage Drop	I _F = 300A, Instant measurement		1.15	1.30	V
t _{rr}	Reverse Recovery Time	I _F = 300A, -di/dt = 300A/μs		100	150	ns
R _{th(j-c)}	Thermal Resistance	Junction to case			0.08	°C/W



* Dimensions in millimeters