SanRex_®

ISOLATED DIODE MODULE (SOFT RECOVERY DIODE)

DSR400AA60

IFAV=400A, VRRM=600V, trr=350ns

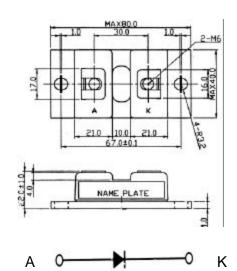
SanRex Soft Recovery Diode Module **DSR400AA** is designed for applications requiring fast switching and soft recovery wave shape to reduce or eliminate the need for snubber components in the circuit. It achieves very low thermal resistance by employing thermally conductive aluminum nitride isolation.

Features

- * Fast Reverse Recovery Time
- * Very Soft Recovery Characteristics
- * Low Forward Voltage Drop
- * Low Thermal Resistance

Typical Applications

- * Welding and Plasma Cutting Machines
- * DC chopper
- * Rectifier in Switch Mode Power Supplies (SMPS)
- * Uninterruptible Power Supplies (UPS)
- * Free Wheeling Diode in converters and motor control circuits



< Maximum	Ratings	>
-----------	---------	---

(Ti = 25°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 Fo	orward Current	D.C., $T_{C} = 98^{\circ}C$	400	Α
I _{FSM}	Surge Forward Current		½ cycle, 60Hz, Peak value, non-repetitive	8000	Α
l²t	I ² t (for fusing)		Value for one cycle surge current	266000	A ² s
Tj	Junction Temperature			-40 to +150	°C
Tstg	Storage Temperature			-40 to +125	°C
V _{ISO}	Isolation Voltage (R.M.S.)		A.C. 1 minute	2500	V
	Mounting	Mounting M6	Recommended 2.5-3.9 (25-40)	4.7(48)	N∙m
	Torque	Terminal M6	Recommended 2.5-3.9 (25-40)	4.7(48)	(kgf·cm)
	Mass		Typical Value	170	q

< Electrical Characteristics >

(Ti = 25°C unless otherwise specified)

1 Electrical Characteristics						
Symbol	Item	Conditions	Ratings		Unit	
			Min.	Тур.	Max.	
I_{RRM}	Repetitive Peak Reverse	$V_R = V_{RRM}$, Tj= 125°C			500	mA
	Current					
V_{FM}	Forward Voltage Drop	I _F = 400A, Instant measurement		1.20	1.30	V
t rr	Reverse Recovery Time	$I_F = 400A$, -di / dt = 400A/Fs			350	n s
Rth(j-c)	Thermal Resistance	Junction to case			0.1	°C/W