SanRex_®

Soft Recovery Diode

DCA150AA50/60

IF(AV)= 150A, VRRM=600V trr=230ns, Softness=0.8

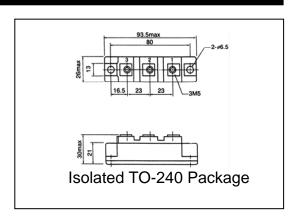
SanRex Soft Recovery Diode Module **DCA150AA** series is designed for applications requiring fast switching and soft recovery wave shape to reduce or eliminate the need for snubber components in the circuit. The modules are isolated for easy mounting with other components or a common heatsink.

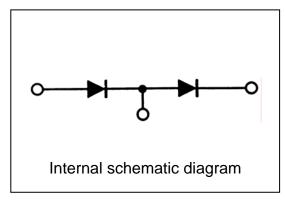
Features

- * Very Fast Reverse Recovery Time
- * Soft Recovery Characteristics
- * Low Forward Voltage Drop
- * UL registered E76102

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 >

Tj = 25°C (unless otherwise noted) per diode

Symbol	Item	Rat	Unit	
		DCA150AA50	DCA150AA60	
V_{RRM}	Repetitive Peak Reverse Voltage	500	600	V
$V_{R(DC)}$	Reverse D.C. Voltage	400	480	V

Average Fo	orward Current	D.C., T _C = 72°C	150	А
Surge Forward Current		½ cycle, 60Hz, Peak value, non-repetitive	2500	Α
I 2t (for fusing)		Value for one cycle surge current	26000	A ² s
Junction Temperature			-40 to +150	°C
Storage Temperature			-40 to +125	°C
Isolation V	oltage (R.M.S.)	A.C. 1 minute	2500	V
Mounting	Mounting M6	Recommended 2.5-3.9	4.7	N·m
Torque	Terminal M5	Recommended 1.5-2.5	2.7	
Mass	1	Typical Value	170	g
	Surge Forv I ² t (for fusi Junction Te Storage Te Isolation Ve Mounting Torque	I ² t (for fusing) Junction Temperature Storage Temperature Isolation Voltage (R.M.S.) Mounting Mounting M6 Torque Terminal M5	Surge Forward Current I 2 cycle, 60Hz, Peak value, non-repetitive Value for one cycle surge current Acc. 1 minute Mounting Mounting M6 Recommended 2.5-3.9 Torque Terminal M5 Recommended 1.5-2.5	Surge Forward Current½ cycle, 60Hz, Peak value, non-repetitive2500I ²t (for fusing)Value for one cycle surge current26000Junction Temperature-40 to +150Storage Temperature-40 to +125Isolation Voltage (R.M.S.)A.C. 1 minute2500Mounting TorqueMounting M6Recommended 2.5-3.94.7TorqueTerminal M5Recommended 1.5-2.52.7

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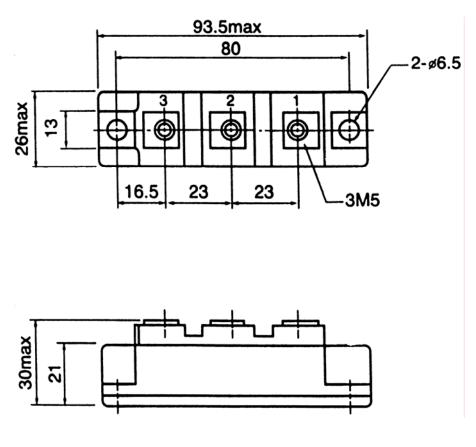
Soft Recovery Diode

DCA150AA50/60

< Electrical Characteristics >

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Symbol	Item	Conditions	Ratings		Unit	
			Min.	Тур.	Max.	
I _{RRM}	Repetitive Peak Reverse Current	$V_R = V_{RRM}$, $T_{j=125$ °C			150	mA
V_{FM}	Forward Voltage Drop	I _F = 150A, Inst. measurement		1.18	1.30	V
t _{rr}	Reverse Recovery Time	I_F = 150A, V_R =300V, -di / dt = 100A/F s		230	300	n s
t _b /t _a	Softness	$I_F = 150A$, $V_R = 300V$, $-di / dt = 100A/F$ S	0.8			
Rth(j-c)	Thermal Resistance	Junction to case, ½ module			0.4	°C/W



* Dimensions in millimeters