

Soft Recovery Diode

DCA150AA50/60

**$I_{F(AV)}=150A$, $V_{RRM}=600V$
 $t_{rr}=230ns$, **Softness=0.8****

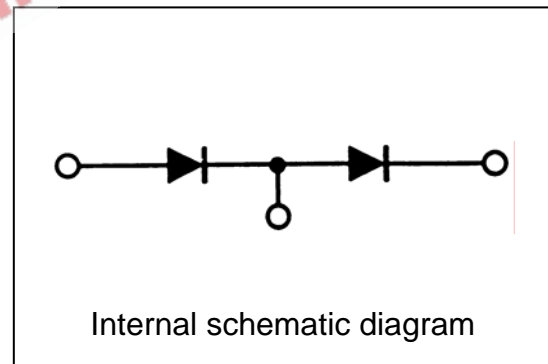
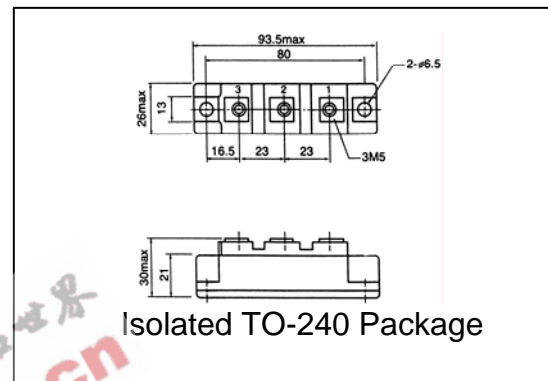
SanRex Soft Recovery Diode Module **DCA150AA** series is designed for applications requiring fast switching and soft recovery wave shape to reduce or eliminate the need for snubber components in the circuit. The modules are isolated for easy mounting with other components or a common heatsink.

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 >

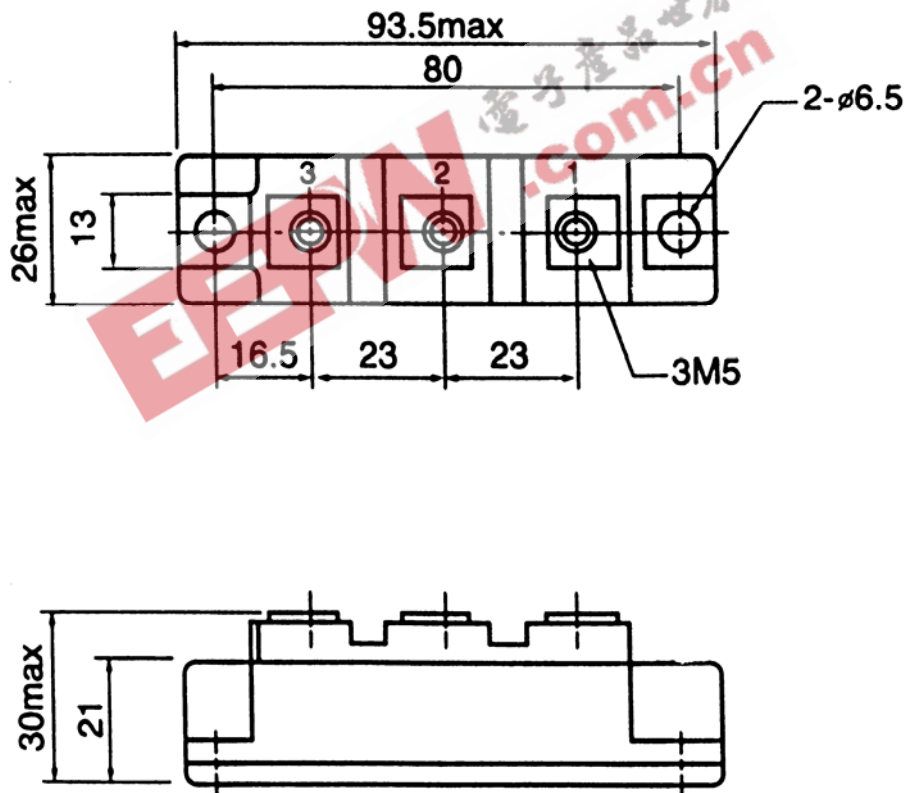
$T_j = 25^\circ C$ (unless otherwise noted) per diode

Symbol	Item	Ratings		Unit	
		DCA150AA50	DCA150AA60		
V_{RRM}	Repetitive Peak Reverse Voltage	500	600	V	
$V_{R(DC)}$	Reverse D.C. Voltage	400	480	V	
$I_{F(AV)}$	Average Forward Current	D.C., $T_c = 72^\circ C$		150	A
I_{FSM}	Surge Forward Current	$\frac{1}{2}$ cycle, 60Hz, Peak value, non-repetitive		2500	A
$I^2 t$	$I^2 t$ (for fusing)	Value for one cycle surge current		26000	A ² s
T_j	Junction Temperature			-40 to +150	°C
T_{stg}	Storage Temperature			-40 to +125	°C
V_{ISO}	Isolation Voltage (R.M.S.)	A.C. 1 minute		2500	V
	Mounting Torque	Mounting M6	Recommended 2.5-3.9	4.7	N·m
		Terminal M5	Recommended 1.5-2.5	2.7	
	Mass	Typical Value		170	g

< Electrical Characteristics >

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

Symbol	Item	Conditions	Ratings			Unit
			Min.	Typ.	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			
R _{th(j-c)}	Thermal Resistance	Junction to case, ½ module			0.4	°C/W



* Dimensions in millimeters