

Thyristor/Thyristor Thyristor/Diode

SCA200AA, SCE200AA

$I_{T(AV)} = 200A$, $V_{RRM} = 800 - 1800V$

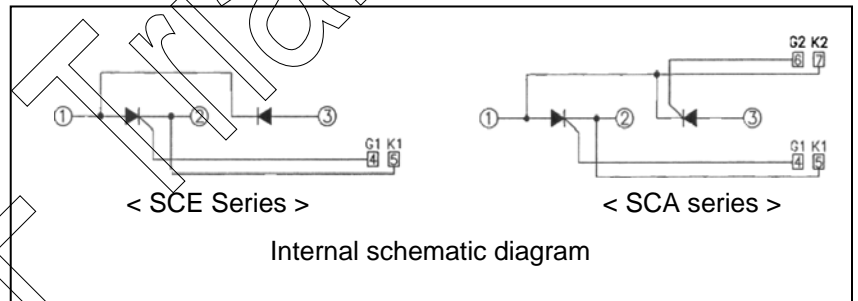
SanRex Thyristor/Thyristor (SCA series), Thyristor/Diode (SCE series) are designed for general purpose high voltage applications. **The modules are an Isolated Industrial Standard Package.**

Features

- * Glass-passivated Junctions Feature
- * High Surge Current ($I_{TSM}=6500A$)
- * Low On-State Voltage Drop ($V_{TM}=1.4V$)
- * UL E76102 approved
- * RoHS compliance

Typical Applications

- * Welders
- * Uninterruptible Power Supplies (UPS)
- * Temperature and Lighting Controls
- * Soft Starters
- * Battery Chargers



< Maximum Ratings >

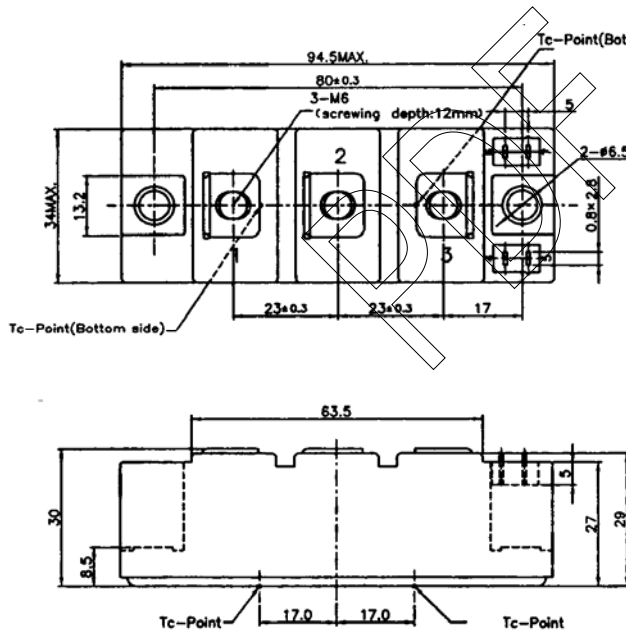
$T_j = 25^\circ C$ (unless otherwise noted) per diode

Symbol	Item		Ratings				Unit
			SCA200AA80 SCE200AA80	SCA200AA120 SCE200AA120	SCA200AA160 SCE200AA160	SCA200AA180 SCE200AA180	
V _{RRM}	Repetitive Peak Reverse Voltage		800	1200	1600	1800	V
V _{RSM}	Non-Repetitive Peak Reverse Voltage		960	1300	1700	1900	V
V _{DRM}	Repetitive Peak Off-state Voltage		800	1200	1600	1800	V
I _{T(AV)}	Average On-state Current		T _C = 82°C			200	A
I _{T(RMS)}	R.M.S. On-state Current		T _C = 82°C			314	A
I _{TSM}	Surge On-state Current		1/2 cycle, 50Hz/60Hz, Peak value, Non-repetitive			6000/6500	A
I ² t	I ² t (for fusing)		Value for one cycle surge current			180000	A ² s
P _{GM}	Peak Gate Power Dissipation					10	W
P _{G(AV)}	Average Gate Power Dissipation					3	W
I _{FGM}	Peak Gate Current					3	A
V _{FG M}	Peak Gate Voltage (Forward)					10	V
V _{RG M}	Peak Gate Voltage (Reverse)					5	V
di/dt	Critical Rate of Rise of On-state Current		I _G =100mA, V _D =1/2V _{DRM} , dig/dt=0.1A/F s			200	A/F s
V _{ISO}	Isolation Breakdown Voltage		A.C. 1 minute			3000	
T _j	Operating Junction Temperature					-40 to +125	°C
T _{stg}	Storage Temperature					-40 to +125	°C
	Mounting Torque	Mounting M6	Recommended Value 2.5 to 3.9			4.7	N*m
		Terminals M6	Recommended Value 2.5 to 3.9			4.7	
	Mass		Typical Value			210	g

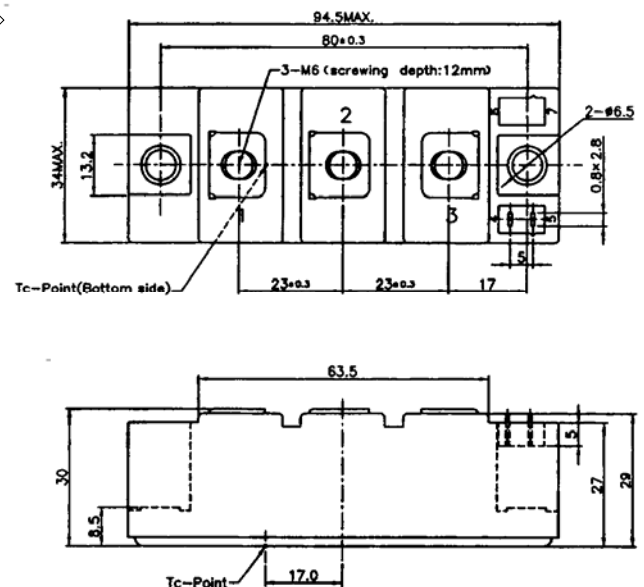
< Electrical Characteristics >

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

Symbol	Item	Conditions	Ratings	Unit
I_{DRM}	Repetitive Peak Off-state Current	$T_j = 125^\circ\text{C}$, $V_D = V_{\text{DRM}}$	100	mA
I_{RRM}	Repetitive Peak Reverse Current	$T_j = 125^\circ\text{C}$, $V_R = V_{\text{RRM}}$	100	mA
V_{TM}	Peak On-State Voltage	$I_T = 600\text{A}$	1.4	V
$V_{\text{T(T0)}}$	Threshold Voltage	$T_j = 25^\circ\text{C}$	1.0	V
		$T_j = 125^\circ\text{C}$	0.85	V
r_t	Slope Resistance	$T_j = 25^\circ\text{C}$	0.8	M Ohm
		$T_j = 125^\circ\text{C}$	1.1	
I_{GT}	Gate Trigger Current	$V_D = 6\text{V}$, $I_T = 1\text{A}$	100	mA
V_{GT}	Gate Trigger Voltage	$V_D = 6\text{V}$, $I_T = 1\text{A}$	3	V
V_{GD}	Non-Trigger Gate Voltage	$T_j = 125^\circ\text{C}$, $V_D = 1/2 V_{\text{DRM}}$	0.25	V
dv/dt	Critical Rate of Rise of Off-state Voltage	$T_j = 125^\circ\text{C}$, $V_D = 2/3 V_{\text{DRM}}$	1000	V/Fs
$R_{\text{th(j-c)}}$	Thermal Resistance	Junction to case	0.155	$^\circ\text{C/W}$



< SCA series : Thyristor/Thyristor >



< SCE series : Thyristor/Diode >

* Dimensions in millimeters (1mm=0.0394")