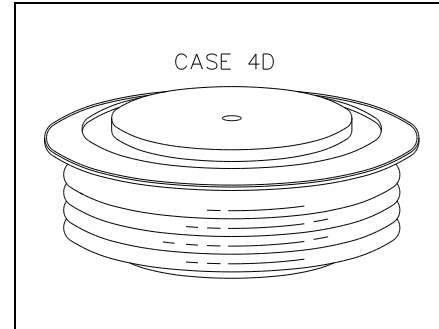


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**GENERAL PURPOSE HIGH POWER STANDARD RECTIFIER**

**Features:**

- . All Diffused Structure
- . High Surge rating
- . Blocking capability up to 2000 volts
- . Soft Reverse Recovery
- . Rugged Ceramic Hermetic Package
- . Pressure Assembled Device



**ELECTRICAL CHARACTERISTICS AND RATINGS**

**Reverse Blocking**

Device Type	V <sub>RRM</sub> (1)	V <sub>RSM</sub> (1)
SW14CXC950	1400	1500
SW16CXC950	1600	1700
SW17CXC950	1700	1800
SW18CXC950	1800	1900
SW19CXC950	1900	2000
SW20CXC950	2000	2100

V<sub>RRM</sub> = Repetitive peak reverse voltage

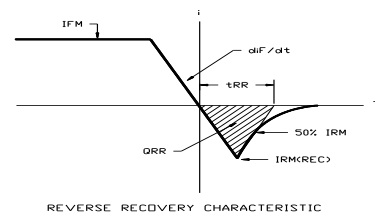
V<sub>RSM</sub> = Non repetitive peak reverse voltage (2)

Repetitive peak reverse leakage	I <sub>RRM</sub>	10 mA 50 mA (3)
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Notes:

All ratings are specified for T<sub>j</sub>=25 °C unless otherwise stated.

- (1) All voltage ratings are specified for an applied 50Hz/60zHz sinusoidal waveform over the temperature range -40 to +185 °C.
- (2) 10 msec. max. pulse width
- (3) Maximum value for T<sub>j</sub> = 185 °C.



**Conducting - on state**

Parameter	Symbol	Min.	Max.	Typ	Units	Conditions
Average value of on-state current	I <sub>F(AV)</sub>		2400		A	Sinewave, 180° conduction, T <sub>c</sub> = 55°C
RMS value of on-state current	I <sub>FRMS</sub>		4400		A	Nominal value
Peak one cycle surge (non repetitive) current	I <sub>FSM</sub>		28050		A	10.0 msec (50Hz), sinusoidal wave-shape, 180° conduction, T <sub>j</sub> = 160 °C
I square t	I <sup>2</sup> t		3.92x10 <sup>6</sup>		A <sup>2</sup> s	10 msec
Peak on-state voltage	V <sub>FM</sub>		1.68		V	I <sub>FM</sub> = 4500 A; T <sub>j</sub> = 160 oC
Reverse Recovery Current (4)	I <sub>RM(REC)</sub>		260		A	I <sub>FM</sub> = 1000 A; dI <sub>F</sub> /dt = 10 A/μs, T <sub>j</sub> = 160 oC
Reverse Recovery Charge (4)	Q <sub>rr</sub>		*		μC	
Reverse Recovery Time (4)	t <sub>RR</sub>		*		μs	

\* For guaranteed maximum values, contact factory

Parameter	Symbol	Min.	Max.	Typ.	Units	Conditions
Operating temperature	$T_j$	-40	+160		°C	
Storage temperature	$T_{stg}$	-40	+160		°C	
Thermal resistance - junction to case	$R_{\theta(j-c)}$		0.023 0.046		°C/W	Double sided cooled Single sided cooled
Thermal resistance - case to sink	$R_{\theta(c-s)}$		.010 .020		°C/W	Double sided cooled * Single sided cooled *
Mounting force	P	5000 22.3	6000 26.7		lb. kN	
Weight	W			16 460	oz. g	

\* Mounting surfaces smooth, flat and greased

**CASE OUTLINE AND DIMENSIONS**

