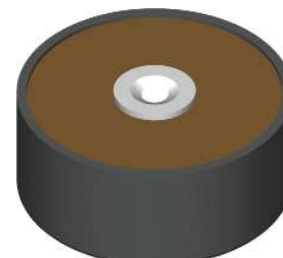


High Voltage Rectifiers

$$V_{RRM} = 3200 \text{ V}$$

$$I_{F(AV)M} = 22.9 \text{ A}$$

V_{RRM} V	Standard Types	Power Designation
3200	UGE 0421 AY4	Si-E 1125 / 500-6



Symbol	Conditions	Maximum Ratings
$I_{F(RMS)}$ $I_{F(AV)M}$	air self cooling, $T_{amb} = 45^\circ\text{C}$ - without cooling plate - with colling plate	40 A 7.4 A 10.9 A
	forced air cooling; $v = 3 \text{ m/s}$; $T_{amb} = 35^\circ\text{C}$ - without cooling plate - with colling plate	14.2 A 18.8 A
	oil cooling; $T_{amb} = 35^\circ\text{C}$ - without cooling plate - with colling plate	19.7 A 22.9 A
P_{RSM}	$T_{VJ} = 150^\circ\text{C}$; $t_p = 10 \mu\text{s}$	7 kW
I_{FSM}	non repetitive, 50 c/s (for 60 c/s add 10%) $T_{VJ} = 45^\circ\text{C}$; $t_p = 10 \text{ ms}$	300 A
	$T_{VJ} = 150^\circ\text{C}$; $t_p = 10 \text{ ms}$	250 A
T_{VJ}		-40...+150 °C
T_{stg}		-40...+150 °C
T_{VJM}		150 °C

Weight		115 g
---------------	--	-------

Symbol	Conditions	Characteristic Values
I_R	$V_R = V_{RRM}$ $T_{VJ} = 150^\circ\text{C}$	$\leq 2 \text{ mA}$
V_F	$I_F = 55 \text{ A}$ $T_{VJ} = 25^\circ\text{C}$	2.72 V
V_{T0}	$T_{VJ} = 150^\circ\text{C}$	1,7 V
r_T	$T_{VJ} = 150^\circ\text{C}$	16 mΩ
a	$f = 50\text{Hz}$	5 x 9.81 m/s ²
M_d		8 Nm

Data according to IEC 60747-2

Features

- Hermetically sealed Epoxy
- Use in oil
- Avalanche characteristics

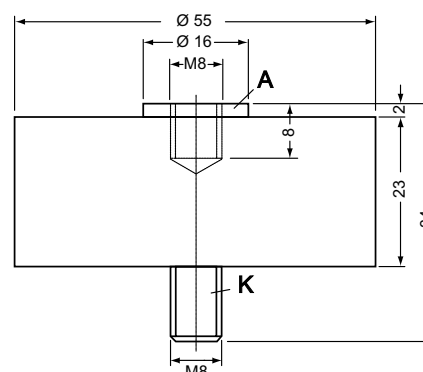
Applications

- X-Ray equipment
- Electrostatic dust precipitators
- Electronic beam welding
- Lasers
- Cable test equipment

Advantages

- Simple mounting
- Improved temperature and power cycling
- Reduced protection circuits
- Series and parallel operation

Dimensions in mm (1 mm = 0.0394")



Disclaimer Notice

Information furnished is believed to be accurate and reliable. However, users should independently evaluate the suitability of and test each product selected for their own applications. Littelfuse products are not designed for, and may not be used in, all applications. Read complete Disclaimer Notice at www.littelfuse.com/disclaimer-electronics.

IXYS reserves the right to change limits, test conditions and dimensions.

20200123a

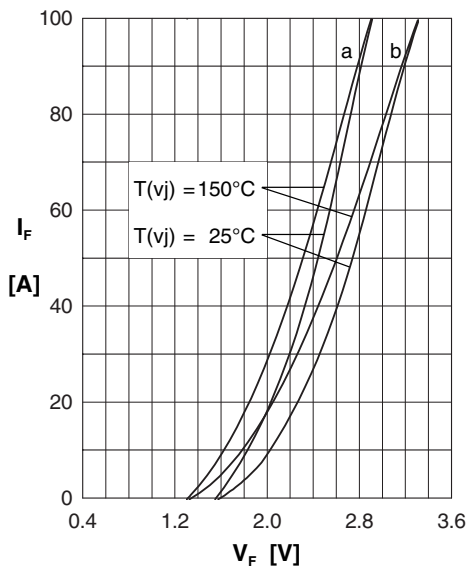


Fig. 1: Forward characteristics
 Instantaneous forward current I_F as a function of instantaneous forward voltage drop V_F for junction temperature $T_{(vj)} = 25^\circ\text{C}$ and $T_{(vj)} = 150^\circ\text{C}$
 a = Mean value characteristic
 b = Limit value characteristic

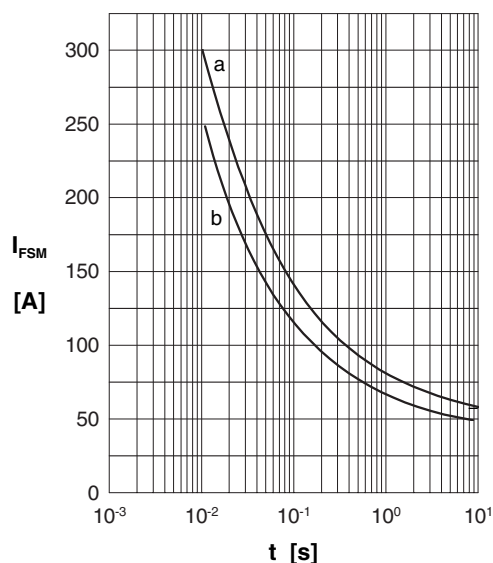


Fig. 2: Characteristics of maximum permissible current
 The curves show the non repetitive peak one cycle surge forward current I_{FSM} as a function of time t and serve for rating protective devices.
 a = Initial state $T_{(vj)} = 45^\circ\text{C}$
 b = Initial state $T_{(vj)} = 150^\circ\text{C}$

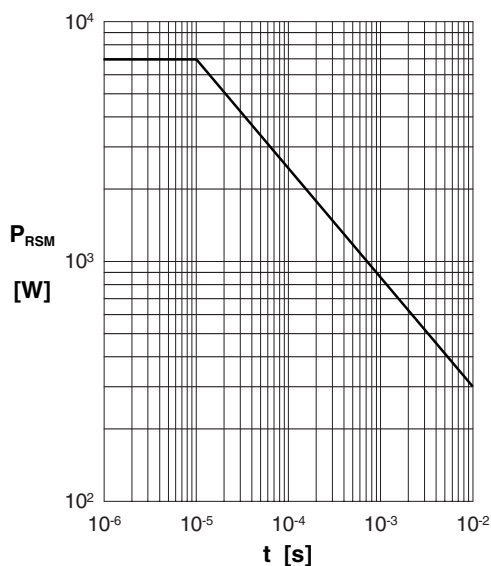


Fig. 3: Power loss
 Non repetitive peak reverse power loss P_{RSM} as a function of time t , $T_{(vj)} = 150^\circ\text{C}$

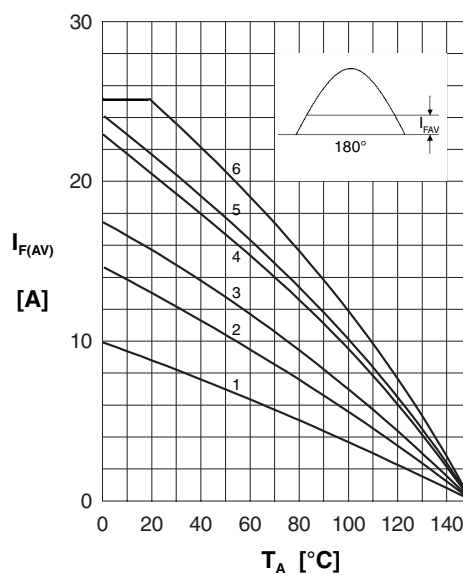


Fig. 4: Load diagram
 Mean forward current $I_{F(AV)}$ of one module for a sine half wave for various cooling modes as a function of the cooling medium temperature T_{amb} for a resistive load (horizontal mounting).

Cooling modes

- | | | |
|------------------------|---------|---------------|
| 1 = air self cooling | without | cooling plate |
| 2 = air self cooling | with | cooling plate |
| 3 = forced air cooling | without | cooling plate |
| 4 = forced air cooling | with | cooling plate |
| 5 = oil cooling | without | cooling plate |
| 6 = oil cooling | with | cooling plate |