



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

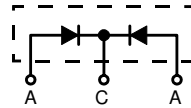
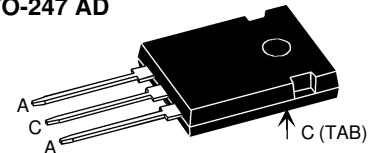
Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



# Power Schottky Rectifier with common cathode

$I_{FAV} = 2 \times 15 \text{ A}$   
 $V_{RRM} = 100 \text{ V}$   
 $V_F = 0.64 \text{ V}$

$V_{RSM}$	$V_{RRM}$	Type
V	V	
100	100	DSSK 30-01A


**TO-247 AD**


A = Anode, C = Cathode, TAB = Cathode

Symbol	Conditions	Maximum Ratings	
$I_{FRMS}$		50	A
$I_{FAV}$	$T_C = 160^\circ\text{C}$ ; rectangular, $d = 0.5$	15	A
$I_{FAV}$	$T_C = 160^\circ\text{C}$ ; rectangular, $d = 0.5$ ; per device	30	A
$I_{FSM}$	$T_{VJ} = 45^\circ\text{C}$ ; $t_p = 10 \text{ ms}$ (50 Hz), sine	230	A
$E_{AS}$	$I_{AS} = 9.5 \text{ A}$ ; $L = 180 \mu\text{H}$ ; $T_{VJ} = 25^\circ\text{C}$ ; non repetitive	10	mJ
$I_{AR}$	$V_A = 1.5 \cdot V_{RRM}$ typ.; $f = 10 \text{ kHz}$ ; repetitive	1	A
$(dv/dt)_{cr}$		5000	V/ $\mu\text{s}$
$T_{VJ}$		-55...+175	$^\circ\text{C}$
$T_{VJM}$		175	$^\circ\text{C}$
$T_{stg}$		-55...+150	$^\circ\text{C}$
$P_{tot}$	$T_C = 25^\circ\text{C}$	105	W
$M_d$	mounting torque	0.8...1.2	Nm
Weight	typical	6	g

**Features**

- International standard package
- Very low  $V_F$
- Extremely low switching losses
- Low  $I_{RM}$ -values
- Epoxy meets UL 94V-0

**Applications**

- Rectifiers in switch mode power supplies (SMPS)
- Free wheeling diode in low voltage converters

**Advantages**

- High reliability circuit operation
- Low voltage peaks for reduced protection circuits
- Low noise switching
- Low losses

Dimensions see outlines.pdf

Symbol	Conditions	Characteristic Values	
		typ.	max.
$I_R$ ①	$T_{VJ} = 25^\circ\text{C}$ $V_R = V_{RRM}$		0.5 mA
	$T_{VJ} = 125^\circ\text{C}$ $V_R = V_{RRM}$		5 mA
$V_F$	$I_F = 15 \text{ A}$ ; $T_{VJ} = 125^\circ\text{C}$		0.64 V
	$I_F = 15 \text{ A}$ ; $T_{VJ} = 25^\circ\text{C}$		0.78 V
	$I_F = 30 \text{ A}$ ; $T_{VJ} = 125^\circ\text{C}$		0.74 V
$R_{thJC}$			1.4 K/W
$R_{thCH}$	0.25		K/W

Pulse test: ① Pulse Width = 5 ms, Duty Cycle < 2.0 %  
Data according to IEC 60747 and per diode unless otherwise specified

IXYS reserves the right to change limits, Conditions and dimensions.

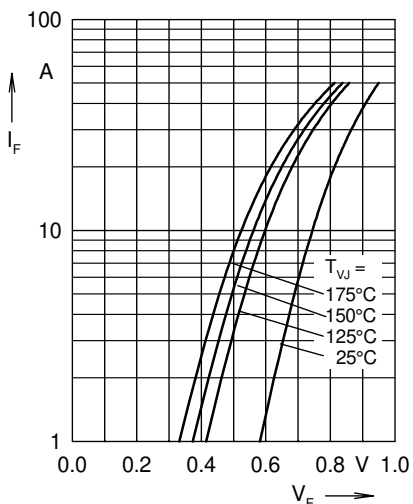


Fig. 1 Maximum forward voltage drop characteristics

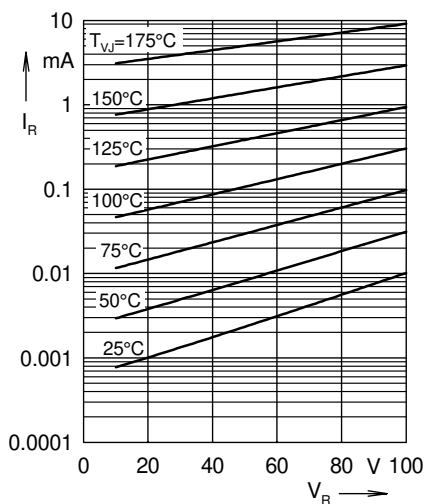


Fig. 2 Typ. value of reverse current  $I_R$  versus reverse voltage  $V_R$

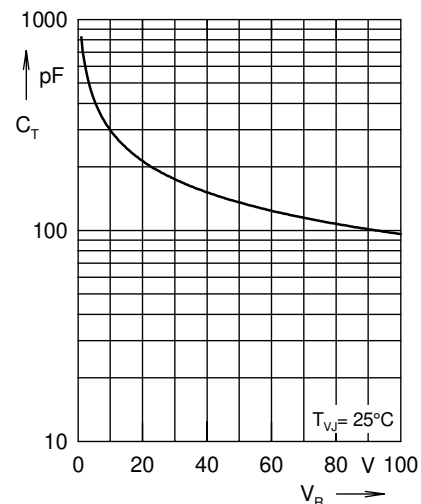


Fig. 3 Typ. junction capacitance  $C_T$  versus reverse voltage  $V_R$

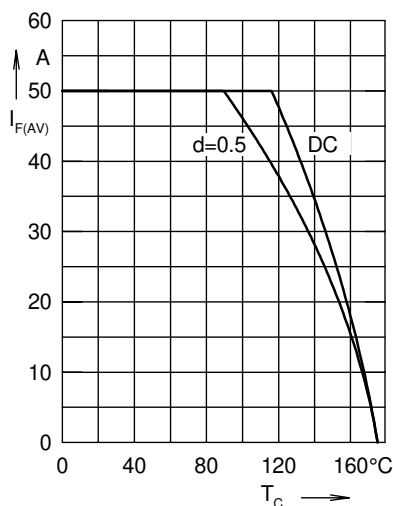


Fig. 4 Average forward current  $I_{F(AV)}$  versus case temperature  $T_C$

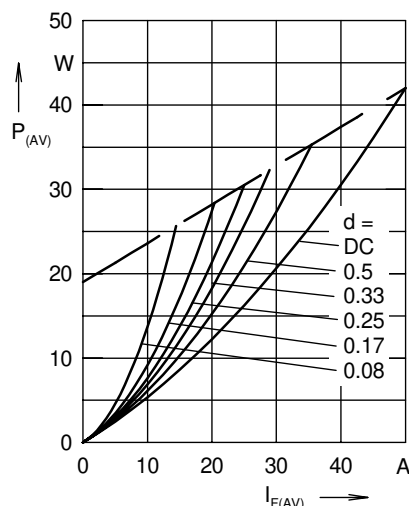


Fig. 5 Forward power loss characteristics

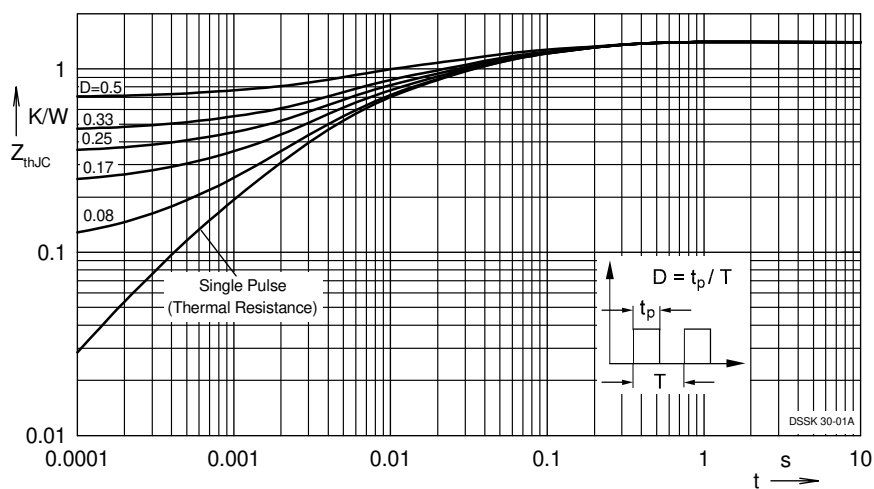


Fig. 6 Transient thermal impedance junction to case at various duty cycles

Note: All curves are per diode