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.

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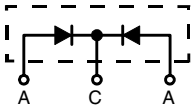
Power Schottky Rectifier
with common cathode

I_{FAV} = 2x40 A
V_{RRM} = 45 V
V_F = 0.45 V

V_{RSM} V	V_{RRM} V	Type
45	45	DSSK 80-0045B



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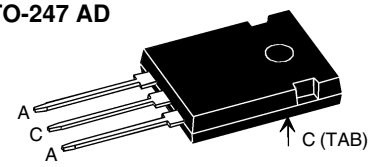

A = Anode, C = Cathode , TAB = Cathode

Symbol	Conditions	Maximum Ratings	
I_{FRMS}		70	A
I_{FAV}	T_C = 125°C; rectangular, d = 0.5	40	A
I_{FAV}	T_C = 125°C; rectangular, d = 0.5; per device	80	A
I_{FSM}	T_{VJ} = 45°C; t_p = 10 ms (50 Hz), sine	600	A
E_{AS}	I_{AS} = 20 A; L = 180 µH; T_{VJ} = 25°C; non repetitive	57	mJ
I_{AR}	V_A =1.5 • V_{RRM} typ.; f=10 kHz; repetitive	2	A
$(dv/dt)_{cr}$		1000	V/µs
T_{VJ}		-55...+150	°C
T_{VJM}		150	°C
T_{stg}		-55...+150	°C
P_{tot}	T_C = 25°C	155	W
M_d	mounting torque	0.8...1.2	Nm
Weight	typical	6	g

Symbol	Conditions	Characteristic Values typ.	max.	
I_R ①	T_{VJ} = 25°C V_R = V_{RRM}		30	mA
	T_{VJ} = 100°C V_R = V_{RRM}		250	mA
V_F	I_F = 40 A; T_{VJ} = 125°C		0.45	V
	I_F = 40 A; T_{VJ} = 25°C		0.51	V
	I_F = 80 A; T_{VJ} = 125°C		0.69	V
R_{thJC}			0.8	K/W
R_{thCH}		0.25		K/W

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 pages D2 - 87-88

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.

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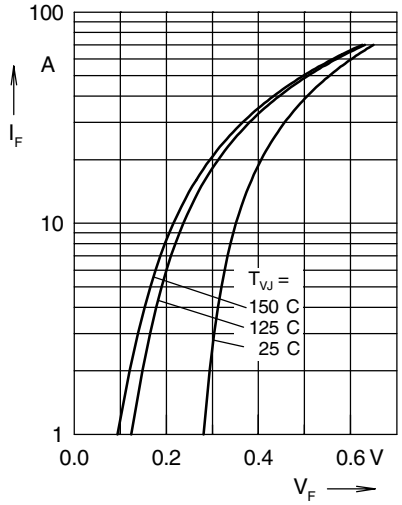

Fig. 1 Maximum forward voltage drop characteristics

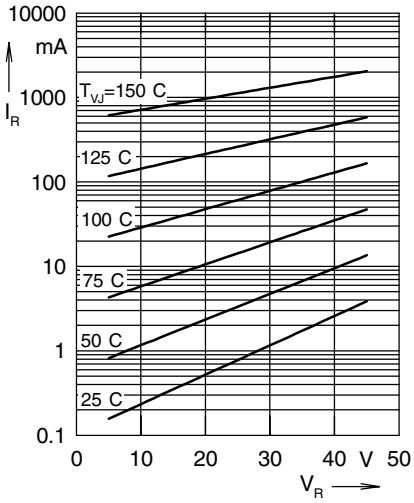

Fig. 2 Typ. value of reverse current I_R versus reverse voltage V_R

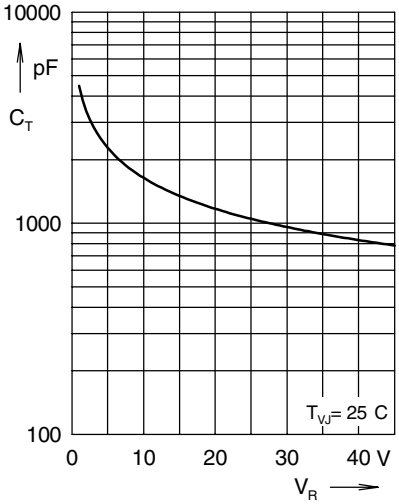

Fig. 3 Typ. junction capacitance C_T versus reverse voltage V_R

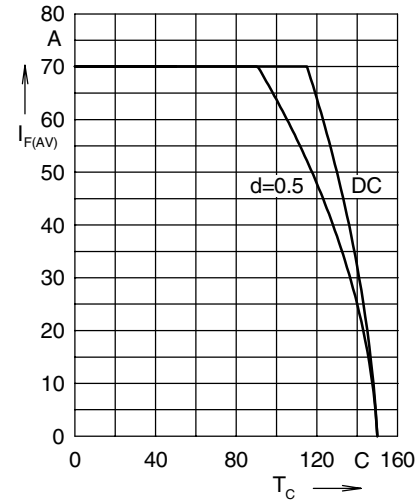

Fig. 4 Average forward current $I_{F(AV)}$ versus case temperature T_C

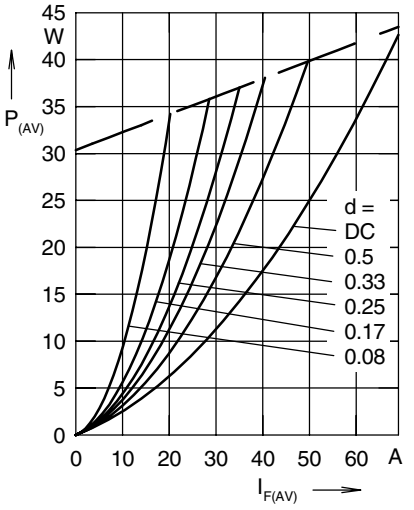

Fig. 5 Forward power loss characteristics

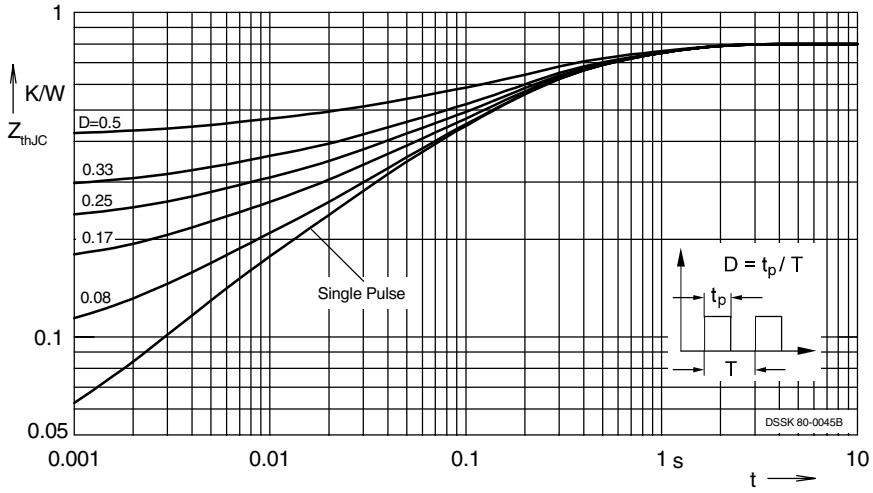

Fig. 6 Transient thermal impedance junction to case at various duty cycles

Note: All curves are per diode

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