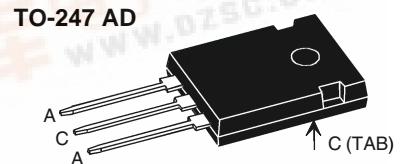
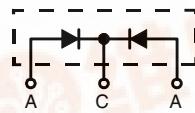




Power Schottky Rectifier with common cathode

$I_{FAV} = 2 \times 40 A$
 $V_{RRM} = 45 V$
 $V_F = 0.45 V$

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



A = Anode, C = Cathode , TAB = Cathode

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

Symbol	Conditions	Characteristic Values	
		typ.	max.
I_R	① $T_{VJ} = 25^\circ C$ $V_R = V_{RRM}$ $T_{VJ} = 100^\circ C$ $V_R = V_{RRM}$	30 250	mA mA
V_F	$I_F = 40 A$; $T_{VJ} = 125^\circ C$ $I_F = 40 A$; $T_{VJ} = 25^\circ C$ $I_F = 80 A$; $T_{VJ} = 125^\circ C$	0.45 0.51 0.69	V V 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.

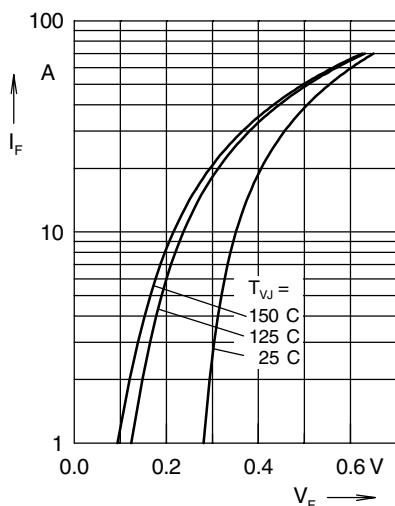


Fig. 1 Maximum forward voltage drop characteristics

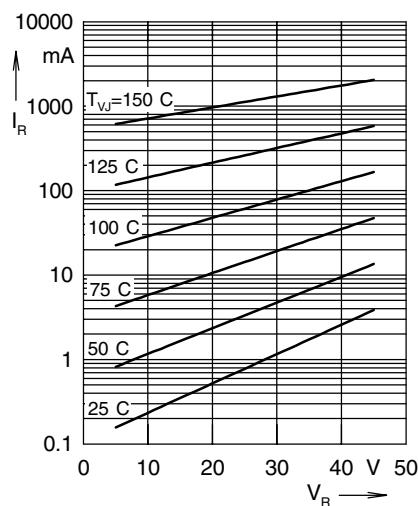


Fig. 2 Typ. value of reverse current I_R versus reverse voltage V_R

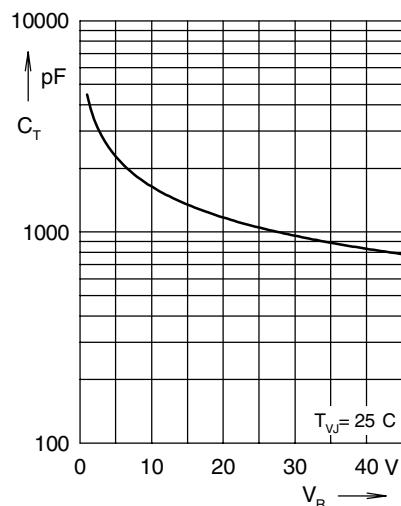


Fig. 3 Typ. junction capacitance C_T versus reverse voltage V_R

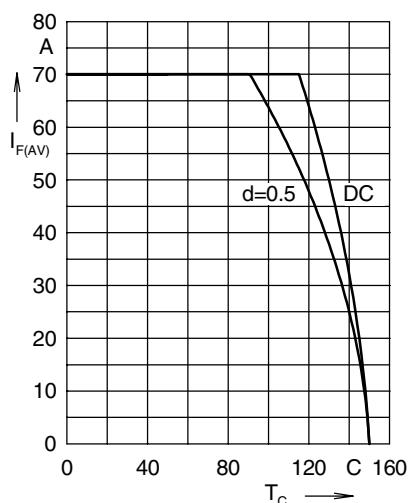


Fig. 4 Average forward current $I_{F(AV)}$ versus case temperature T_C

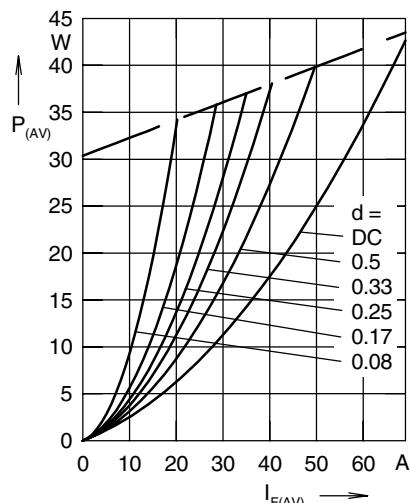


Fig. 5 Forward power loss characteristics

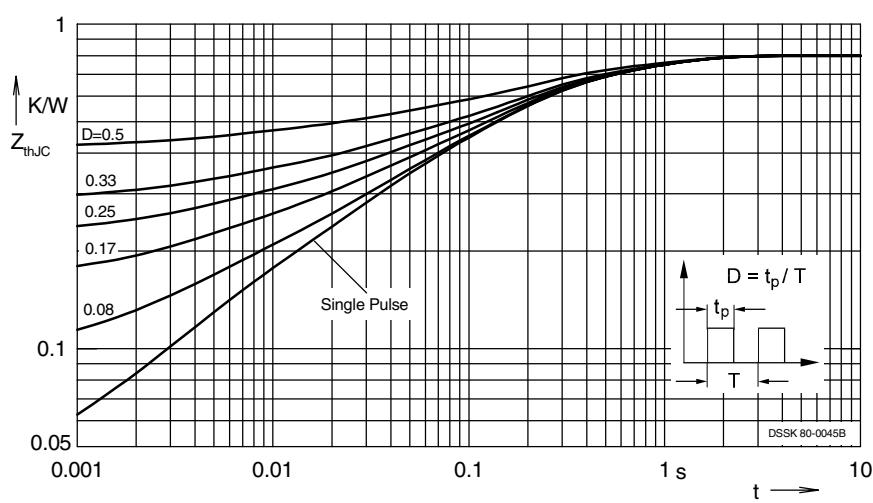


Fig. 6 Transient thermal impedance junction to case at various duty cycles

Note: All curves are per diode