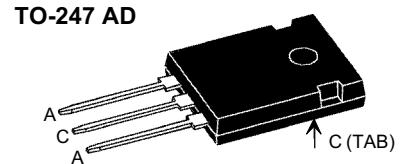
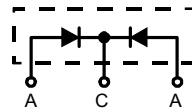


Power Schottky Rectifier with common cathode

I_{FAV} = 2x20 A
V_{RRM} = 15 V
V_F = 0.32 V

Preliminary Data

V _{RSM}	V _{RRM}	Type
V	V	
15	15	DSSK 40-0015B



A = Anode, C = Cathode , TAB = Cathode

Symbol	Conditions	Maximum Ratings	
I _{FRMS}		50	A
I _{FAV}	T _C = 135°C; rectangular, d = 0.5	20	A
I _{FAV}	T _C = 135°C; rectangular, d = 0.5; per device	40	A
I _{FSM}	T _{VJ} = 45°C; t _p = 10 ms (50 Hz), sine	350	A
E _{AS}	I _{AS} = tbd A; L = 180 µH; T _{VJ} = 25°C; non repetitive	tbd	mJ
I _{AR}	V _A = 1.5 • V _{RRM} typ.; f=10 kHz; repetitive	tbd	A
(dV/dt) _{cr}		tbd	V/µs
T _{VJ}		-55...+150	°C
T _{VJM}		150	°C
T _{stg}		-55...+150	°C
P _{tot}	T _C = 25°C	90	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} T _{VJ} = 100°C V _R = V _{RRM}	10 200	mA mA
V _F	I _F = 20 A; T _{VJ} = 125°C I _F = 20 A; T _{VJ} = 25°C I _F = 40 A; T _{VJ} = 125°C	0.32 0.44 0.41	V V V
R _{thJC}		0.25	1.4 K/W
R _{thCH}			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 outlines.pdf

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.

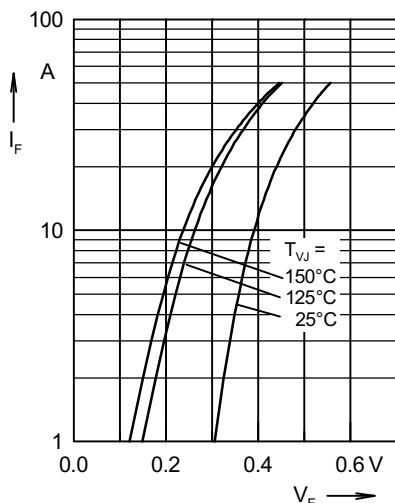


Fig. 1 Maximum forward voltage drop characteristics

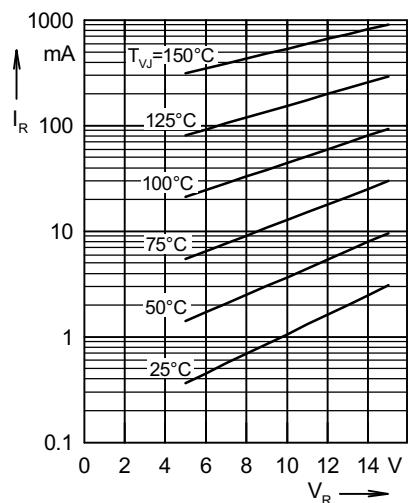


Fig. 2 Typ. value of reverse current I_R versus reverse voltage V_R

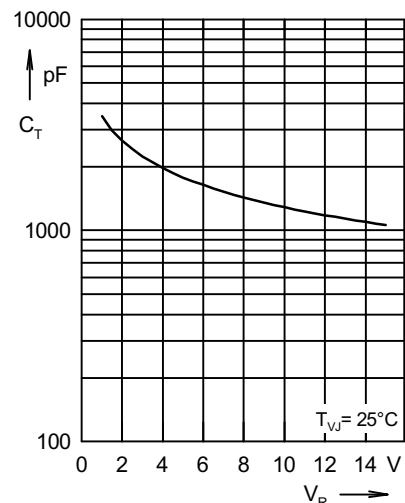


Fig. 3 Typ. junction capacitance C_T versus reverse voltage V_R

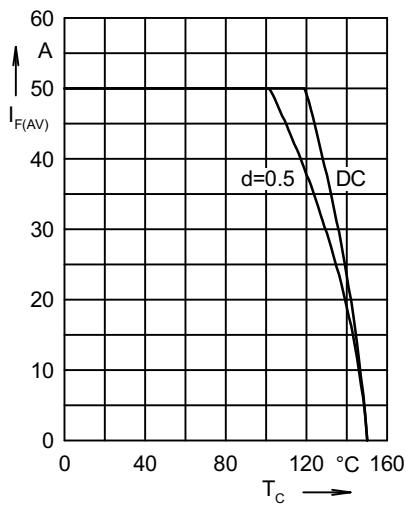


Fig. 4 Average forward current $I_{F(AV)}$ versus case temperature T_C

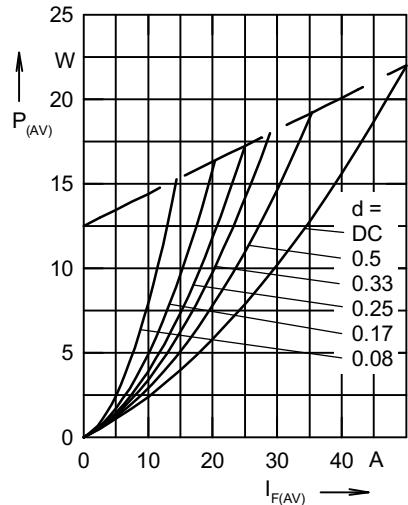


Fig. 5 Forward power loss characteristics

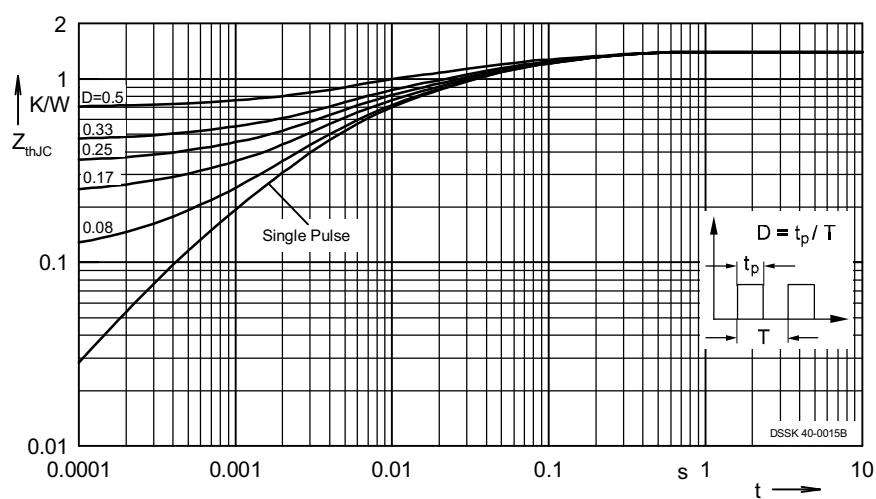


Fig. 6 Transient thermal impedance junction to case at various duty cycles

Note: All curves are per diode