⎸⎺⎸IXYS

Power Schottky Rectifier

I_{FAV} = 25 A
V_{RRM} = 25 V
V_F = 0.44 V

Preliminary Data

V_{RSM}	V_{RRM}	Type
V	**V**	
25	**25**	**DSS 25-0025B**

A ─▷⎸─ C
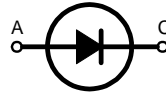
TO-220 AC
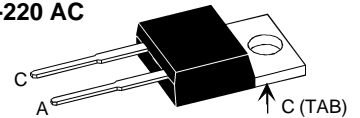
A = Anode, C = Cathode , TAB = Cathode

Symbol	Conditions	Maximum Ratings	
I_{FRMS}		35	A
I_{FAVM}	T_C = 125°C; rectangular, d = 0.5	25	A
I_{FSM}	T_{VJ} = 45°C; t_p = 10 ms (50 Hz), sine	300	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	0.4...0.6	Nm
Weight	typical	2	g

Symbol	Conditions	Characteristic Values		
		typ.	max.	
I_R ①	T_{VJ} = 25°C V_R = V_{RRM}		20	mA
	T_{VJ} = 100°C V_R = V_{RRM}		80	mA
V_F	I_F = 25 A; T_{VJ} = 125°C		0.44	V
	I_F = 25 A; T_{VJ} = 25°C		0.52	V
	I_F = 50 A; T_{VJ} = 125°C		0.66	V
R_{thJC}			1.4	K/W
R_{thCH}		0.5		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

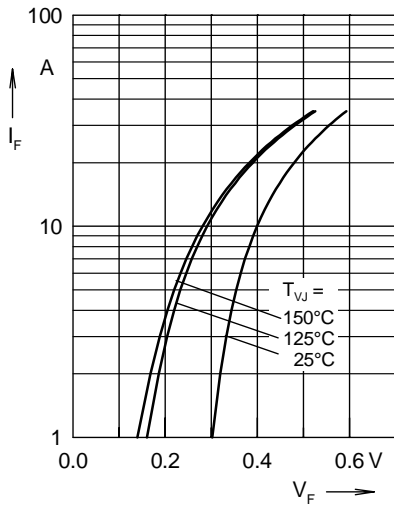IXYS reserves the right to change limits, Conditions and dimensions.

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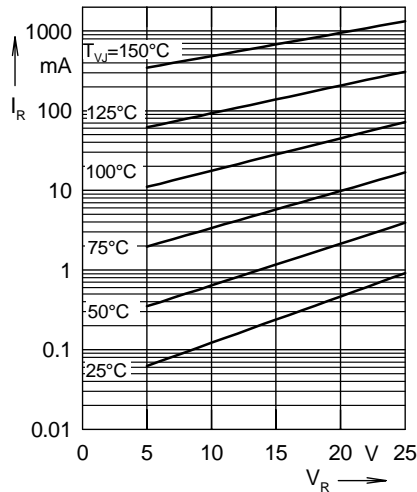Fig. 1 Maximum forward voltage
drop characteristics

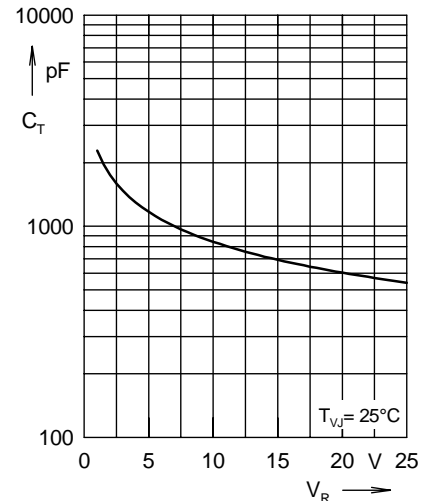Fig. 2 Typ. value of reverse current I_R
versus reverse voltage V_R

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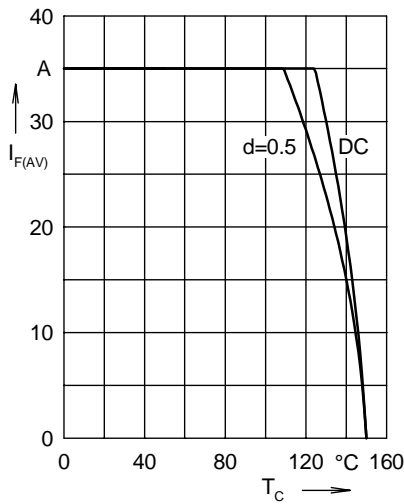versus reverse voltage V_R

Fig. 4 Average forward current $I_{F(AV)}$
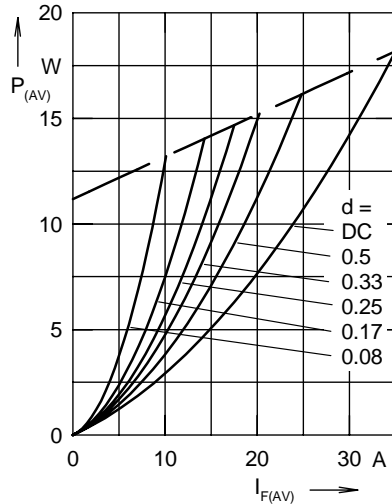versus case temperature T_C
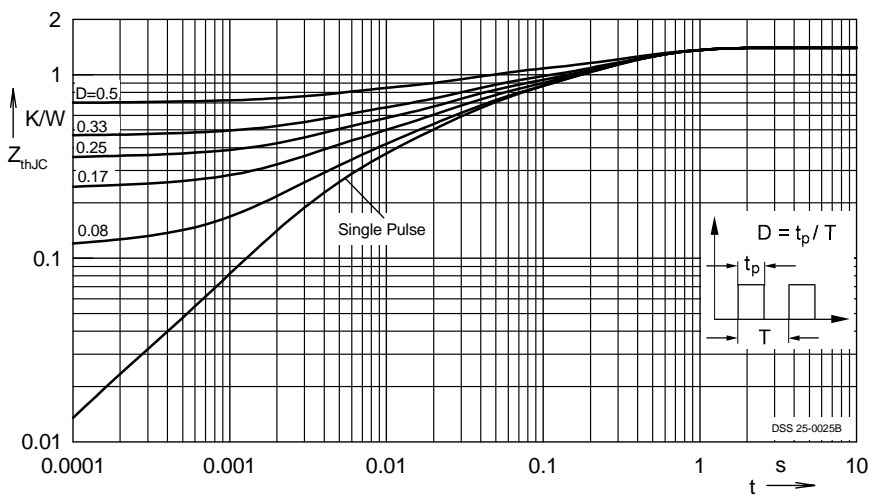
Fig. 5 Forward power loss
characteristics

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

Note: All curves are per diode