

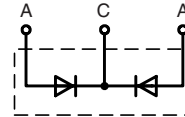
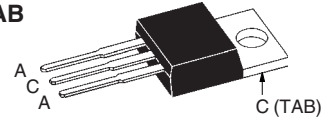
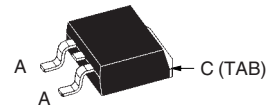
Power Schottky Rectifier with common cathode

$$I_{FAV} = 15 \text{ A}$$

$$V_{RRM} = 100 \text{ V}$$

$$V_F = 0.63 \text{ V}$$

V_{RSM} V	V_{RRM} V	Type
100	100	DSSK 28-01A
100	100	DSSK 28-01AS


TO-220 AB
(A-Type)

TO-263 AB
(AS-Type)


A = Anode, C = Cathode , TAB = Cathode

Symbol	Conditions	Maximum Ratings	
I_{FRMS}	$T_C = 160^\circ\text{C}$; rectangular, $d = 0.5$	35	A
I_{FAV}		2x15	A
I_{FSM}	$T_{VJ} = 45^\circ\text{C}$; $t_p = 10 \text{ ms}$ (50 Hz), sinev	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/ μs
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 (Version A only)	0.4...0.6	Nm
Weight	typical	2	g

Features

- International standard package
- Very low V_F
- Extremely low switching losses
- Low IRM-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

Symbol	Conditions	Characteristic Values	
		typ.	max.
I_R ①	$T_{VJ} = 25^\circ\text{C}$ $V_R = V_{RRM}$ $T_{VJ} = 125^\circ\text{C}$ $V_R = V_{RRM}$	0.5	5 mA
V_F	$I_F = 15 \text{ A}$; $T_{VJ} = 125^\circ\text{C}$ $I_F = 15 \text{ A}$; $T_{VJ} = 25^\circ\text{C}$ $I_F = 30 \text{ A}$; $T_{VJ} = 125^\circ\text{C}$	0.63 0.78 0.75	V V V
R_{thJC} R_{thCH}	(Version A only)	0.5	1.4 K/W K/W

Pulse test: Pulse Width = 5 ms, Duty Cycle < 2.0 %

Data according to IEC 60747 and per diode unless otherwise specified

Dimensions see Outlines.pdf

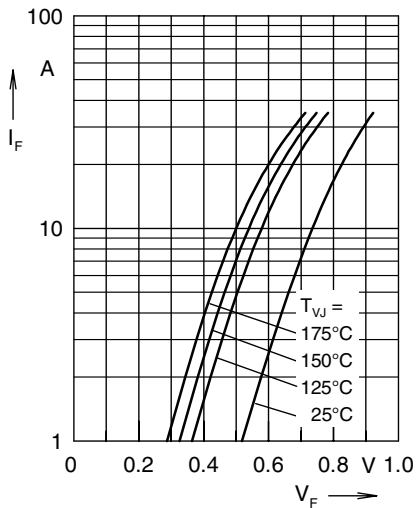


Fig. 1 Maximum forward voltage drop characteristics

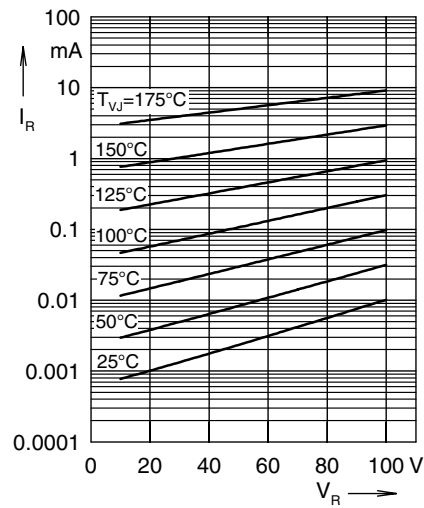


Fig. 2 Typ. value of reverse current I_R versus reverse voltage V_R

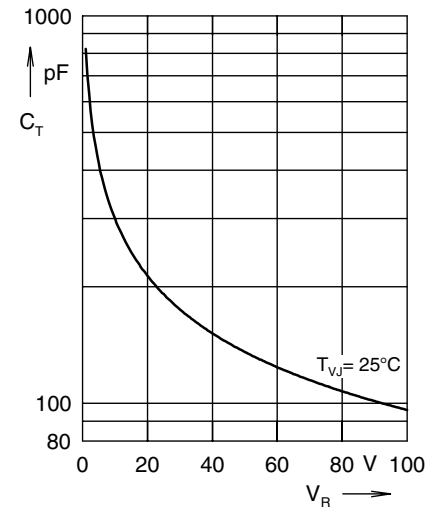


Fig. 3 Typ. junction capacitance C_T versus reverse voltage V_R

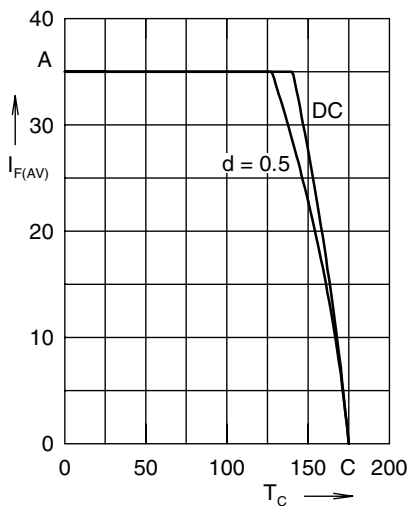


Fig. 4 Average forward current $I_{F(AV)}$ versus case temperature T_C

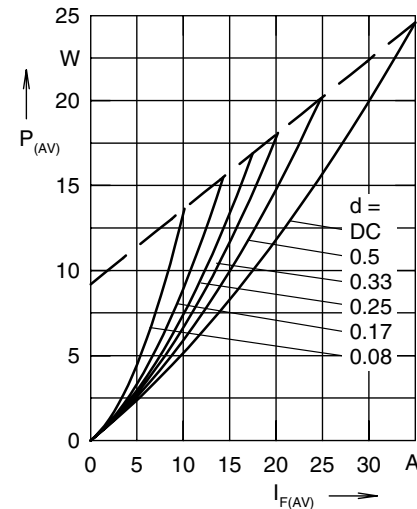


Fig. 5 Forward power loss characteristics

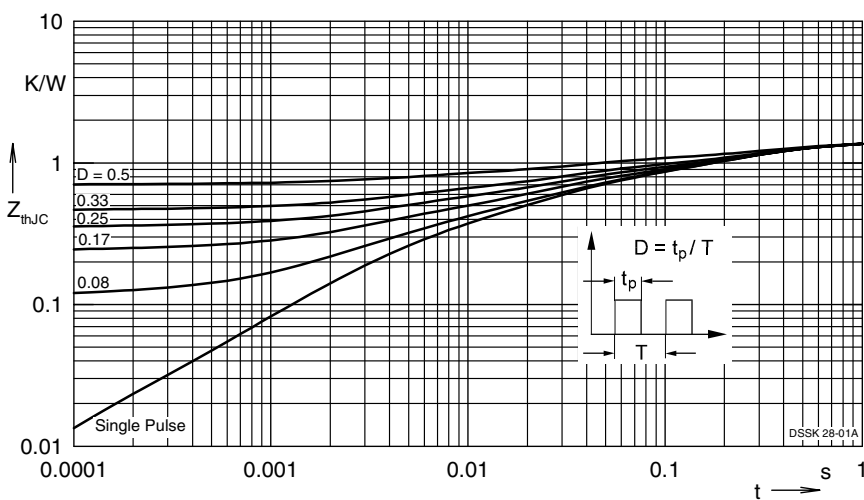


Fig. 6 Transient thermal impedance junction to case at various duty cycles

Note: All curves are per diode