

Power Schottky Rectifier with common cathode

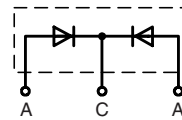
$$I_{FAV} = 2 \times 25 \text{ A}$$

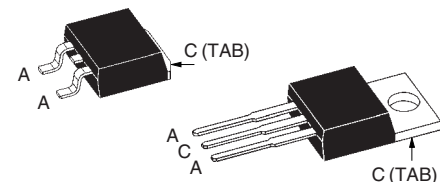
$$V_{RRM} = 30 \text{ V}$$

$$V_F = 0.35 \text{ V}$$

Preliminary Data

V_{RSM} V	V_{RRM} V	Type
30	30	DSSK 48-003B
30	30	DSSK 48-003BS


TO-263 AB
(BS-Type)

TO-220 AB
(B-Type)


A = Anode, C = Cathode, TAB = Cathode

Symbol	Conditions	Maximum Ratings	
I_{FRMS}		35	A
I_{FAV}	$T_C = 130^\circ\text{C}$; rectangular, $d = 0.5$	25	A
I_{FAV}	$T_C = 130^\circ\text{C}$; rectangular, $d = 0.5$; per device	50	A
I_{FSM}	$T_{VJ} = 45^\circ\text{C}$; $t_p = 10 \text{ ms}$ (50 Hz), sine	420	A
E_{AS}	$I_{AS} = \text{tbd A}$; $L = 180 \mu\text{H}$; $T_{VJ} = 25^\circ\text{C}$; non repetitive	tbd	mJ
I_{AR}	$V_A = 1.5 \cdot V_{RRM}$ typ.; $f = 10 \text{ kHz}$; repetitive	tbd	A
$(dv/dt)_{cr}$		tbd	V/ μs
T_{VJ}		-55...+150	$^\circ\text{C}$
T_{VJM}		150	$^\circ\text{C}$
T_{stg}		-55...+150	$^\circ\text{C}$
P_{tot}	$T_C = 25^\circ\text{C}$	105	W
M_d	mounting torque (Version B only)	0.4...0.6	Nm
Weight	typical	2	g

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

Symbol	Conditions	Characteristic Values	
		typ.	max.
I_R ①	$V_R = V_{RRM}$; $T_{VJ} = 25^\circ\text{C}$	20	mA
	$V_R = V_{RRM}$; $T_{VJ} = 100^\circ\text{C}$	100	mA
V_F	$I_F = 20 \text{ A}$; $T_{VJ} = 125^\circ\text{C}$	0.35	V
	$I_F = 20 \text{ A}$; $T_{VJ} = 25^\circ\text{C}$	0.44	V
	$I_F = 40 \text{ A}$; $T_{VJ} = 125^\circ\text{C}$	0.48	V
R_{thJC}		1.2	K/W
R_{thCH}	(Version B only)	0.5	K/W

Pulse test: ① Pulse Width = 5 ms, Duty Cycle < 2.0%
Data according to IEC 60747 and per diode unless otherwise specified

Dimensions see Outlines.pdf