

Power Schottky Rectifier

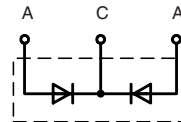
$$I_{FAV} = 2x 10 A$$

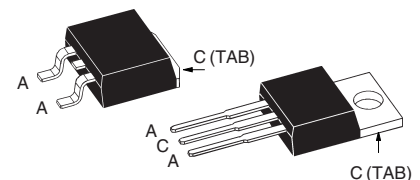
$$V_{RRM} = 25 V$$

$$V_F = 0.40 V$$

Preliminary Data

V_{RSM}	V_{RRM}	Type
V	V	
25	25	DSSK 18-0025B
25	25	DSSK 18-0025BS


TO-263 AB
 (...S-Type)

TO-220 AC


A = Anode, C = Cathode, TAB = Cathode

Symbol	Conditions	Maximum Ratings	
I_{FRMS}		35	A
I_{FAV}	$T_C = 140^\circ C$; rectangular, $d = 0.5$	10	A
I_{FAV}	$T_C = 140^\circ C$; rectangular, $d = 0.5$; per device	20	A
I_{FSM}	$T_{VJ} = 45^\circ C$; $t_p = 10$ ms (50 Hz), sine	140	A
E_{AS}	$I_{AS} = tbd$ A; $L = 180$ μH ; $T_{VJ} = 25^\circ C$; non repetitive	tbd	mJ
I_{AR}	$V_A = 1.5 \cdot V_{RRM}$ typ.; $f = 10$ kHz; repetitive	tbd	A
$(dv/dt)_{cr}$		tbd	V/ μs
T_{VJ}		-55...+150	$^\circ C$
T_{VJM}		150	$^\circ C$
T_{stg}		-55...+150	$^\circ C$
P_{tot}	$T_C = 25^\circ C$	75	W
M_d	mounting torque	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	$T_{VJ} = 25^\circ C$ $V_R = V_{RRM}$	10	mA
	$T_{VJ} = 100^\circ C$ $V_R = V_{RRM}$	40	mA
V_F	$I_F = 10$ A; $T_{VJ} = 125^\circ C$	0.37	V
	$I_F = 10$ A; $T_{VJ} = 25^\circ C$	0.45	V
	$I_F = 20$ A; $T_{VJ} = 125^\circ C$	0.51	V
R_{thJC}		1.7	K/W
R_{thCH}	0.5		K/W

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