

# Power Schottky Rectifier with common cathode

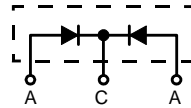
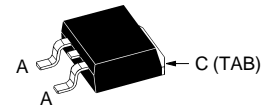
$$I_{FAV} = 2 \times 25 \text{ A}$$

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

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

## Preliminary Data

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


**TO-263 AB**  
(BS-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/ $\mu\text{s}$
$T_{VJ}$		-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
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

Dimensions see outlines.pdf

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

IXYS reserves the right to change limits, test conditions and dimensions.