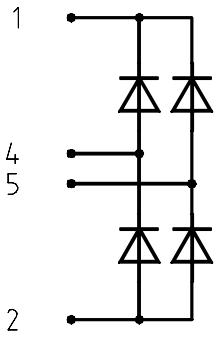
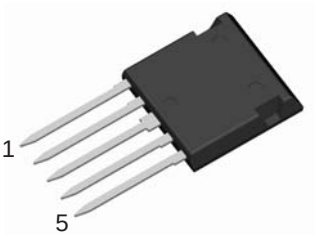
Silicon Carbide Schottky Rectifier Bridge

in ISOPLUS i4-PAC™

FBS 16-06SC

V_{RRM} = 600 V
$I_{D(AV)M}$ = 11 A
$C_{junction}$ = 21 pF





Rectifier Bridge

Symbol	Conditions	Maximum Ratings	
V_{RRM}		600	V
I_{FAV}	T_C = 90°C; sine 180° (per diode)	5	A
$I_{D(AV)M}$	T_C = 90°C	11	A
I_{FSM}	T_{VJ} = 25°C; t = 10 ms; sine 50 Hz	20	A
P_{tot}	T_C = 25°C (per diode)	27	W

Symbol	Conditions		Characteristic Values (T_{VJ} = 25°C, unless otherwise specified) min.	typ.	max.	
V_F	I_F = 6 A;	T_{VJ} = 25°C		1.5	1.8	V
		T_{VJ} = 125°C		1.6		V
I_R	$V_R = V_{RRM}$;	T_{VJ} = 25°C			0.2	mA
		T_{VJ} = 125°C		0.05		mA
C_J	V_R = 400 V;	T_{VJ} = 125°C		21		pF
R_{thJC}	(per diode)				5.6	K/W
R_{thJS}				8.6		K/W

Data according to IEC 60747 and refer to a single diode unless otherwise stated.

Features

- Silicon Carbide Schottky Diodes
  - no reverse recovery at turn off - only charge of junction capacity - soft turn off waveform
  - no forward recovery at turn on
  - switching behaviour independent of temperature
  - low leakage current
- ISOPLUS i4-PAC(TM) package
  - isolated back surface
  - low coupling capacity between pins and heatsink
  - enlarged creepage towards heatsink
  - application friendly pinout
  - high reliability
  - industry standard outline

Applications

- output rectifiers of high end switched mode power supplies
- other high frequency rectifiers

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

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Component

Symbol	Conditions	Maximum Ratings	
T_{VJ}		-55...+175	°C
T_{stg}		-55...+125	°C
V_{ISOL}	$I_{ISOL} \leq 1$ mA; 50/60 Hz	2500	V~
F_C	mounting force with clip	20...120	N

Symbol	Conditions	Characteristic Values min.	typ.	max.	
C_p	coupling capacity between shorted pins and mounting tab in the case		40		pF
d_S,d_A	pin - pin	1.7			mm
d_S,d_A	pin - backside metal	5.5			mm
Weight			9		g

Dimensions in mm (1 mm = 0.0394")