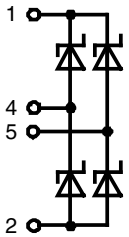
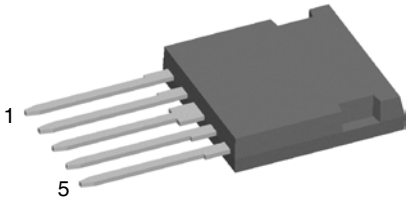
Silicon Carbide Schottky Rectifier Bridge

in ISOPLUS i4-PAC™

V_{RRM} = 600 V
I_{dAVM} = 6.6 A
$C_{junction}$ = 9 pF





Rectifier Bridge			
Symbol	**Conditions**		Maximum Ratings
V_{RRM}			600 V
I_{FAV}	T_C = 90°C; sine 180°	(per diode)	3 A
$I_{D(AV)M}$	T_C = 90°C		6.6 A
I_{FSM}	T_C = 25°C; t = 10 ms; sine 50 Hz		12 A
P_{tot}	T_C = 25°C	(per diode)	19 W

Symbol	Conditions		Characteristic Values (T_{VJ} = 25°C, unless otherwise specified)			
			min.	**typ.**	**max.**	
V_F	I_F = 4 A	T_{VJ} = 25°C		1.7	2.0	V
		T_{VJ} = 125°C		1.9		V
I_R	$V_R = V_{RRM}$	T_{VJ} = 25°C			0.2	mA
		T_{VJ} = 125°C		0.04		mA
C_J	V_R = 400 V	T_{VJ} = 125°C		9		pF
R_{thJC}		(per diode)			8	K/W
R_{thJS}				11.5		K/W

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™ package
  - isolated back surface
  - low coupling capacity between pins and heatsink
  - enlarged creepage towards heatsink
  - application friendly pinout
  - high reliability
  - industry standard outline

Applications

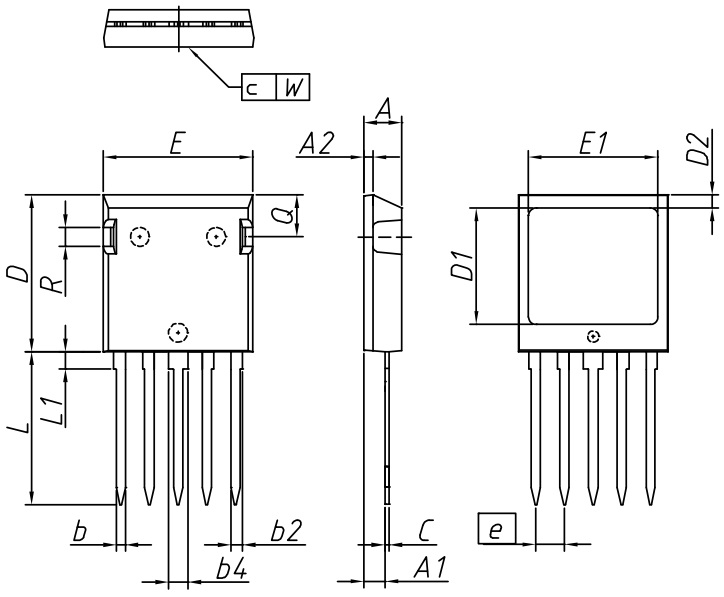
- output rectifiers of high end switch mode power supplies
- other high frequency rectifiers

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Component			
Symbol	**Conditions**	**Maximum Ratings**	
T_{VJ}	operating	-40...+175	°C
T_{stg}		-40...+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“)



DIM.	MILLIMETER		INCHES	
	MIN	MAX	MIN	MAX
A	4,83	5,21	0,190	0,205
A1	2,59	3,00	0,102	0,118
A2	1,17	2,16	0,046	0,085
b	1,14	1,40	0,045	0,055
b1	1,47	1,73	0,058	0,068
b2	2,54	2,79	0,100	0,110
C	0,51	0,74	0,020	0,029
D	20,80	21,34	0,819	0,840
D1	14,99	15,75	0,590	0,620
D2	1,65	2,03	0,065	0,080
E	19,56	20,29	0,770	0,799
E1	16,76	17,53	0,660	0,690
e	3,81	BSC	0,15	BSC
L	19,81	21,34	0,780	0,840
L1	2,11	2,59	0,083	0,102
Q	5,33	6,20	0,210	0,244
R	2,54	4,57	0,100	0,180
W	-	0,10	-	0,004

Die konvexe Form des Substrates ist typ. < 0,05 mm über der Kunststoffoberfläche der Bauteilunterseite

The convex bow of substrate is typ. < 0.05 mm over plastic surface level of device bottom side

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