

Checklist for Bipolar Assemblies



Infineon Technologies Bipolar GmbH & Co. KG

Project Name

please refer to this name in every correspondence regarding the stack described below

Device		
<input type="checkbox"/> Disc	<input type="checkbox"/> Module	if possible

rectifier circuit with mid-point tapping					
Uncontrolled	<input type="checkbox"/> M1U	<input type="checkbox"/> M2U	<input type="checkbox"/> M3U	<input type="checkbox"/> M3.2U	<input type="checkbox"/> M6U
Full controlled	<input type="checkbox"/> M1C	<input type="checkbox"/> M2C	<input type="checkbox"/> M3C	<input type="checkbox"/> M3.2C	<input type="checkbox"/> M6C
			<input type="checkbox"/> with common cathode	<input type="checkbox"/> with common anode	

bridge rectifier circuit				
uncontrolled	<input type="checkbox"/> B2U	<input type="checkbox"/> B6U	<input type="checkbox"/> B6.2U	
half controlled	<input type="checkbox"/> B2H	<input type="checkbox"/> B6H	<input type="checkbox"/> B6.2H	<input type="checkbox"/> thy. with common anode
full controlled	<input type="checkbox"/> B2C	<input type="checkbox"/> B6C	<input type="checkbox"/> B6.2C	
prepared for operation <input type="checkbox"/> parallel <input type="checkbox"/> serial <input type="checkbox"/> antiparallel				

AC switch			
half controlled	<input type="checkbox"/> W1H	<input type="checkbox"/> W2H	<input type="checkbox"/> W3H
full controlled	<input type="checkbox"/> W1C	<input type="checkbox"/> W2C	<input type="checkbox"/> W3C

supply voltage	frequency
<input type="text"/> V	<input type="text"/> Hz

output current
<input type="text"/> A _{DC} (rectifier) or A _{RMS} (AC switch)

load mode
<input type="checkbox"/> permanent
<input type="checkbox"/> overload overcurrent <input type="text"/> A time <input type="text"/> s preload current <input type="text"/> A
<input type="checkbox"/> non periodical overload according to separate diagram

temperature of cooling media (e.g. ambient temperature)
T _{min} <input type="text"/> °C T _{max} <input type="text"/> °C

cooling mode
<input type="checkbox"/> natural air <input type="checkbox"/> forced air <input type="checkbox"/> water <input type="checkbox"/> oil <input type="checkbox"/> own R _{tha} <input type="text"/> K/W
<input type="checkbox"/> without fan <input type="checkbox"/> fan 230VAC <input type="checkbox"/> fan 115VAC

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temperature switch			
<input type="checkbox"/> without	<input type="checkbox"/> O (NC normally closed)	<input type="checkbox"/> S (NO normally open)	
		<input type="checkbox"/> special temperature	T <input type="text"/> °C

overvoltage protection	
<input type="checkbox"/> no overvoltage protection	
<input type="checkbox"/> RC1: TSE - snubber circuit	<input type="checkbox"/> RC2: snubber input bridge
<input type="checkbox"/> RC3: RC1 + RC2	
<input type="checkbox"/> ARC: AC side RC-snubber	<input type="checkbox"/> DRC: DC side protection

fuses		
<input type="checkbox"/> without	<input type="checkbox"/> cell fuses	<input type="checkbox"/> arm fuses

quantity
<input type="text"/> pieces

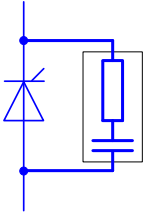
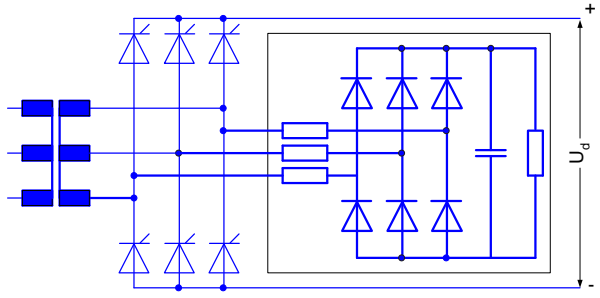
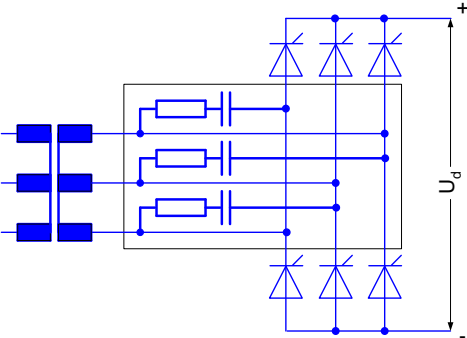
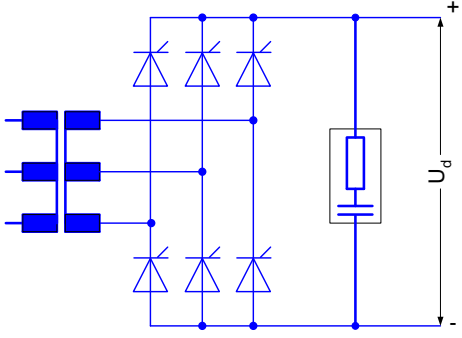
attachments
<input type="text"/> number of enclosed sheets / data files with additional information

space for remarks
<input type="text"/>
<input type="text"/>
<input type="text"/>

customer			
company:	<input type="text"/>	street:	<input type="text"/>
name:	<input type="text"/>	post box:	<input type="text"/>
phone:	<input type="text"/>	zip code/place:	<input type="text"/>
fax:	<input type="text"/>	country:	<input type="text"/>
e-mail:	<input type="text"/>	Date:	<input type="text"/>

please send back this checklist to your responsible sales or contact person – otherwise send back to
e-mail: info@infineon.com or fax: 0049 (0)2902 764-1102

Overvoltage Protection Circuits

<p>RC1 TSE snubber circuit</p> <p>To avoid over voltages due to the reverse recovery charge effect every diode/thyristor is equipped with a parallel RC snubber which absorbs the charge/energy and which is a damping for possible oscillations.</p> 	<p>RC2 input snubber bridge</p> <p>To absorb surge voltages of higher magnitude inrushing from line an auxiliary rectifier is mounted in parallel to the rectifier. This auxiliary rectifier has a storage capacitor connected to the output which will absorb inrushing surges. Besides this there is also a restricted functionality as TSE.</p> 
<p>ARC AC side RC snubber</p> <p>To absorb surge voltages of lower magnitude inrushing from line RC snubber are placed phase to phase on the AC side of the rectifier (recommended for DC currents up to 200A)</p> 	<p>DRC DC side RC snubber</p> <p>To avoid overvoltage at the DC side of a rectifier a RC snubber is mounted. This is helpful if there is no capacitor as DC link close to the rectifier output</p> 

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rectifier circuits with mid-point tapping

M1U 	M2U 	M3 	M3.2U 	M6U
M1C 	M2C 	M3C 	M3.2C 	M6C

*) All star rectifiers available also with common anode.

bridge rectifier circuits

uncontrolled	B2U 	B6U 	B6.2U***
half controlled**	B2H 	B6H 	B6.2H***
full controlled	B2C 	B6C 	B6.2C***

***) All half controlled bridge rectifiers available also with thyristors with common anode.

***) Can be prepared for series, parallel or anti-parallel operation.

AC switches

W1H 	W2H 	W3H
W1C 	W2C 	W3C

Checklist for Bipolar Assemblies

Examples of most common standard circuits:

<p>B2</p>	<p>B6</p>
<p>M6 especially for high current at low voltage</p>	<p>M3.2 especially for high current at low voltage</p>