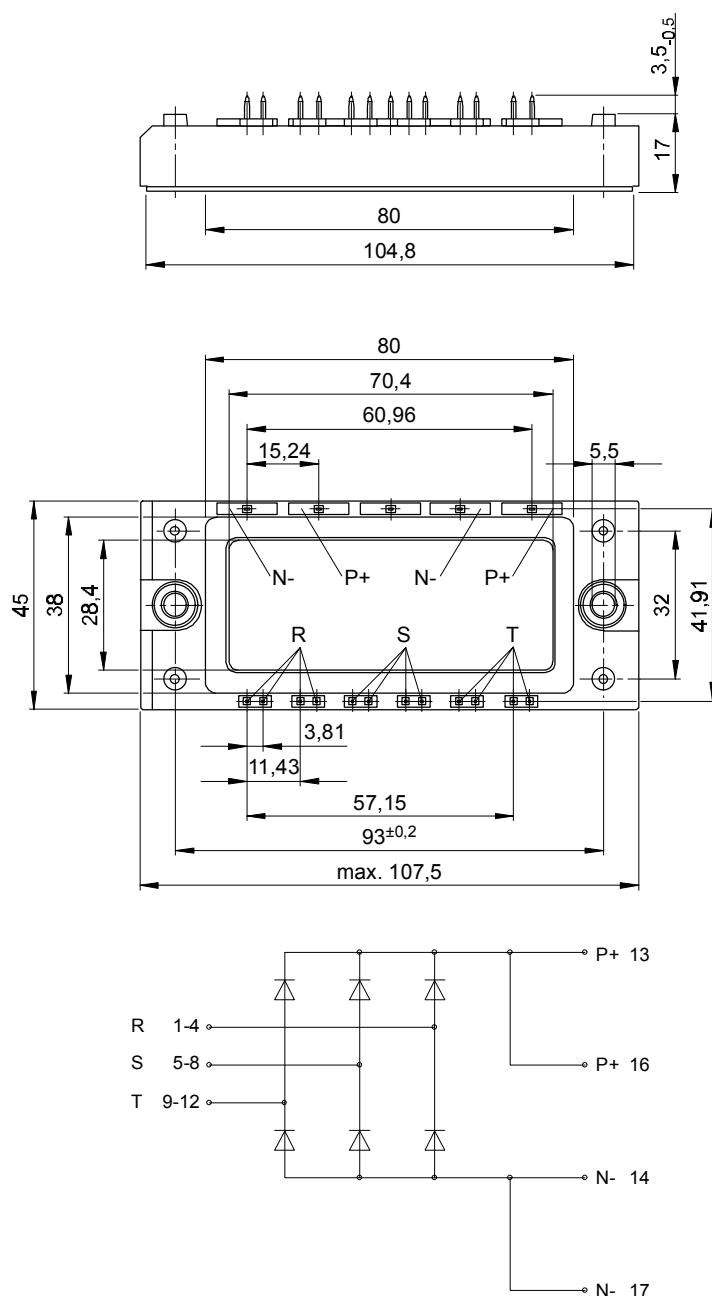




European Power-Semiconductor and Electronics Company GmbH + Co. KG

Marketing Information

DD B6U 84 N 10...16 ..R (ECONO)



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Elektrische Eigenschaften / Electrical properties

Höchstzulässige Werte / Maximum rated values

Periodische Spitzensperrspannung repetitive peak reverse voltage	$T_{vj} = -40^{\circ}\text{C} \dots T_{vj \max}$	V_{RRM}	1000, 1200 V
Stoßspitzensperrspannung non-repetitive peak reverse voltage	$T_{vj} = +25^{\circ}\text{C} \dots T_{vj \max}$	V_{RSM}	1400, 1600 V
Durchlaßstrom-Grenzeffektivwert (pro Element)			1100, 1300 V
RMS forward current (per chip)		I_{FRMSM}	1500, 1700 V
Ausgangsstrom output current	$T_C = 100^{\circ}\text{C}$	I_d	60 A
	$T_C = 84^{\circ}\text{C}$		85 A
	$T_A = 45^{\circ}\text{C}$, KP 0,5 S		104 A
	$T_A = 45^{\circ}\text{C}$, KP 0,33 S		58 A
	$T_A = 35^{\circ}\text{C}$, KP 0,41 S ($V_L = 45\text{l/s}$)		75 A
	$T_A = 35^{\circ}\text{C}$, KP 0,33 S ($V_L = 90\text{l/s}$)		104 A
Stoßstrom-Grenzwert surge forward current	$T_{vj} = 25^{\circ}\text{C}$, $t_p = 10\text{ms}$	I_{FSM}	104 A
Grenzlastintegral I^2t -value	$T_{vj} = T_{vj \max}$, $t_p = 10\text{ms}$		650 A
	$T_{vj} = 25^{\circ}\text{C}$, $t_p = 10\text{ms}$	I^2t	550 A
	$T_{vj} = T_{vj \max}$, $t_p = 10\text{ms}$		2100 A ² s
			1500 A ² s

Charakteristische Werte / Characteristic values

Durchlaßspannung forward voltage	$T_{vj} = T_{vj \max}$, $I_F = 100\text{A}$	V_F	max. 1,55 V
Schleusenspannung threshold voltage	$T_{vj} = T_{vj \max}$	$V_{(TO)}$	0,75 V
Ersatzwiderstand forward slope resistance	$T_{vj} = T_{vj \max}$	r_T	5,5 mW
Sperrstrom reverse current	$T_{vj} = T_{vj \max}$, $V_R = V_{RRM}$	I_R	max. 5 mA
Isolations-Prüfspannung insulation test voltage	RMS, $f = 50\text{Hz}$, $t = 1\text{min}$	V_{ISOL}	2,5 kV
	RMS, $f = 50\text{Hz}$, $t = 1\text{sec}$		3,0 kV

Thermische Eigenschaften / Thermal properties

Innerer Wärmewiderstand thermal resistance, junction to case	pro Modul / per module, $Q = 120^{\circ}\text{rect}$	R_{thJC}	max. 0,241 $^{\circ}\text{C/W}$
	pro Element / per chip, $Q = 120^{\circ}\text{rect}$		max. 1,450 $^{\circ}\text{C/W}$
	pro Modul / per module, DC		max. 0,183 $^{\circ}\text{C/W}$
	pro Element / per chip, DC		max. 1,100 $^{\circ}\text{C/W}$
Übergangs-Wärmewiderstand thermal resistance, case to heatsink	pro Modul / per module	R_{thCK}	max. 0,033 $^{\circ}\text{C/W}$
Höchstzul. Sperrschichttemp. max. junction temperature	pro Element / per chip		max. 0,200 $^{\circ}\text{C/W}$
Betriebstemperatur operating temperature		$I_{vj \max}$	150 $^{\circ}\text{C}$
Lagertemperatur storage temperature		$T_{c \text{ op}}$	- 40...+150 $^{\circ}\text{C}$
		T_{stg}	- 40...+150 $^{\circ}\text{C}$

Mechanische Eigenschaften / Mechanical properties

Gehäuse, siehe Anlage case, see appendix			
Si-Elemente mit Lötkontakt, glaspasiviert Si-pellets with soldered contact, glass-passivated			
Innere Isolation internal insulation			Al_2O_3
Drehmom.f.mech. Befest. mounting torque	Toleranz / tolerance $\pm 15\%$	M1	4 Nm
Drehmom. f. el. Anschlüsse terminal connection torque		G	typ. 185 g
Gewicht weight			12,5 mm
Kriechstrecke creepage distance	$f = 50\text{Hz}$		50 m/s ²
Schwingfestigkeit vibration resistance	$f = 50\text{Hz}$		50 m/s ²
Kühlkörper / heatsinks :			

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