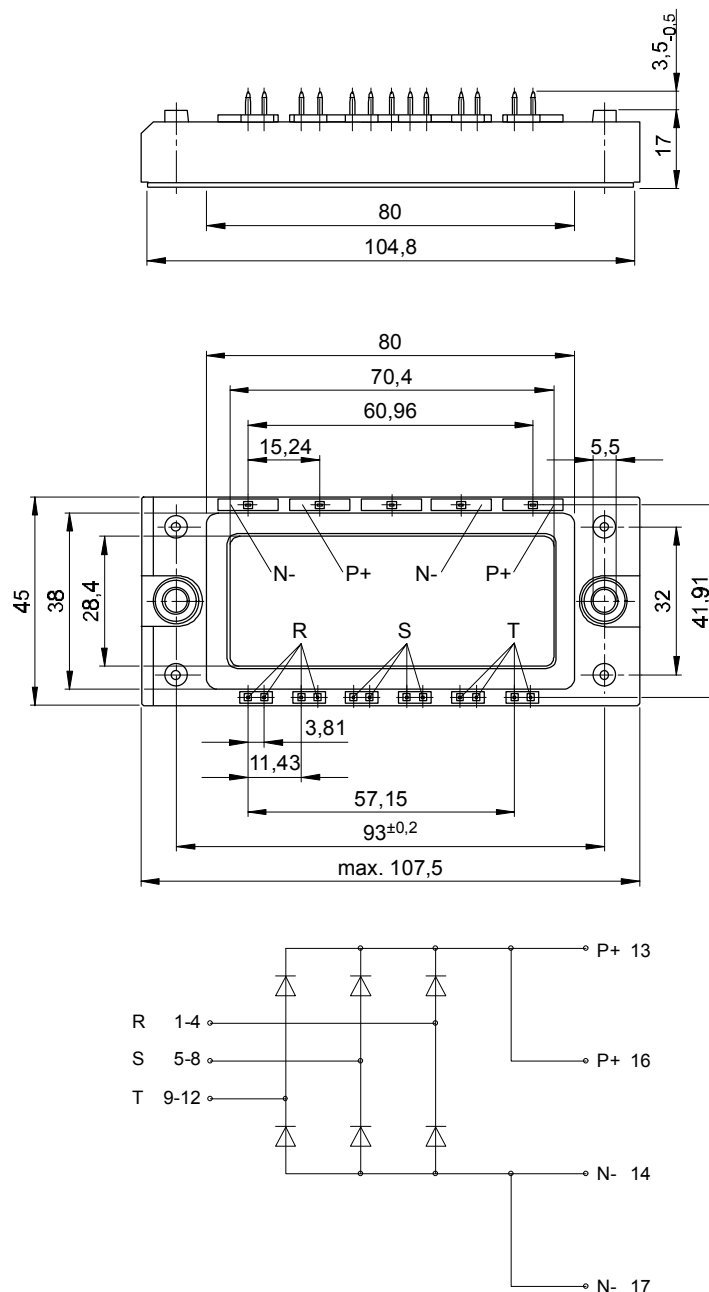




European Power-Semiconductor and Electronics Company GmbH + Co. KG

Marketing Information

DD B6U 144 N 10...16..R (ECONO)



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Elektrische Eigenschaften / Electrical properties

Höchstzulässige Werte / Maximum rated values

Periodische Spitzensperrspannung repetitive peak reverse voltage	$T_{vj} = -40^{\circ}\text{C} \dots T_{vj \text{ max}}$	V_{RRM}	1000, 1200 V 1400, 1600 V
Stoßspitzensperrspannung non-repetitive peak reverse voltage	$T_{vj} = +25^{\circ}\text{C} \dots T_{vj \text{ max}}$	V_{RSM}	1100, 1300 V 1500, 1700 V
Durchlaßstrom-Grenzeffektivwert (pro Element) RMS forward current (per chip)		I_{FRMSM}	100 A
Ausgangsstrom output current	$T_C = 100^{\circ}\text{C}$	I_d	145 A
	$T_C = 84^{\circ}\text{C}$		173 A
	$T_A = 45^{\circ}\text{C}, \text{KP } 0,5 \text{ S}$		71 A
	$T_A = 45^{\circ}\text{C}, \text{KP } 0,33 \text{ S}$		97 A
	$T_A = 35^{\circ}\text{C}, \text{KP } 0,41 \text{ S } (V_L = 45\text{l/s})$		153 A
	$T_A = 35^{\circ}\text{C}, \text{KP } 0,33 \text{ S } (V_L = 90\text{l/s})$		173 A
Stoßstrom-Grenzwert surge forward current	$T_{vj} = 25^{\circ}\text{C}, t_p = 10\text{ms}$	I_{FSM}	1200 A
Grenzlastintegral I^2t -value	$T_{vj} = T_{vj \text{ max}}, t_p = 10\text{ms}$		1000 A
	$T_{vj} = 25^{\circ}\text{C}, t_p = 10\text{ms}$	I^2t	7200 A ² s
	$T_{vj} = T_{vj \text{ max}}, t_p = 10\text{ms}$		5000 A ² s

Charakteristische Werte / Characteristic values

Durchlaßspannung forward voltage	$T_{vj} = T_{vj \text{ max}}, I_F = 150\text{A}$	V_F	max. 1,65 V
Schleusenspannung threshold voltage	$T_{vj} = T_{vj \text{ max}}$	$V_{(TO)}$	0,75 V
Ersatzwiderstand forward slope resistance	$T_{vj} = T_{vj \text{ max}}$	r_T	3,1 mW
Sperrstrom reverse current	$T_{vj} = T_{vj \text{ max}}, V_R = V_{RRM}$	i_R	max. 5 mA
Isolations-Prüfspannung insulation test voltage	RMS, f = 50Hz, t = 1min	V_{ISOL}	2,5 kV
	RMS, f = 50Hz, t = 1sec		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. 0,148 °C/W
	pro Element / per chip, $Q = 120^{\circ}\text{rect}$		max. 0,890 °C/W
	pro Modul / per module, DC		max. 0,167 °C/W
	pro Element / per chip, DC		max. 0,700 °C/W
Übergangs-Wärmewiderstand thermal resistance, case to heatsink	pro Modul / per module	R_{thCK}	max. 0,033 °C/W
Höchstzul. Sperrschichttemp. max. junction temperature	pro Element / per chip	$I_{vj \text{ max}}$	150 °C
Betriebstemperatur operating temperature		$T_{c \text{ op}}$	- 40...+150 °C
Lagertemperatur storage temperature		T_{stg}	- 40...+150 °C

Mechanische Eigenschaften / Mechanical properties

Gehäuse, siehe Anlage case, see appendix			
Si-Elemente mit Lötkontakt, glaspassiviert 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 = 50Hz		50 m/s ²
Schwingfestigkeit vibration resistance	f = 50Hz		50 m/s ²
Kühlkörper / heatsinks :			

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