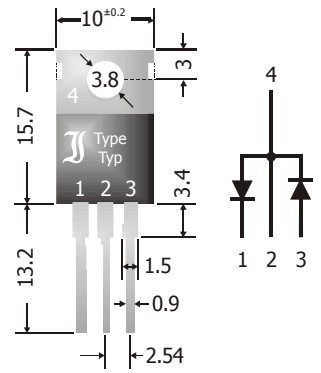
Diotec Semiconductor

PST1600A ... PST1600M

Silicon Rectifiers – Half Bridge
Silizium-Gleichrichter – Halbbrücke

Version 2007-07-06



Dimensions - Maße [mm]

Nominal current Nennstrom	16 A
Repetitive peak reverse voltage Periodische Spitzensperrspannung	50...1000 V
Plastic case Kunststoffgehäuse	TO-220AB
Weight approx. Gewicht ca.	1.8 g
Plastic material has UL classification 94V-0 Gehäusematerial UL94V-0 klassifiziert	
Standard packaging in tubes Standard Lieferform in Stangen	

Maximum ratings and Characteristics **Grenz- und Kennwerte**

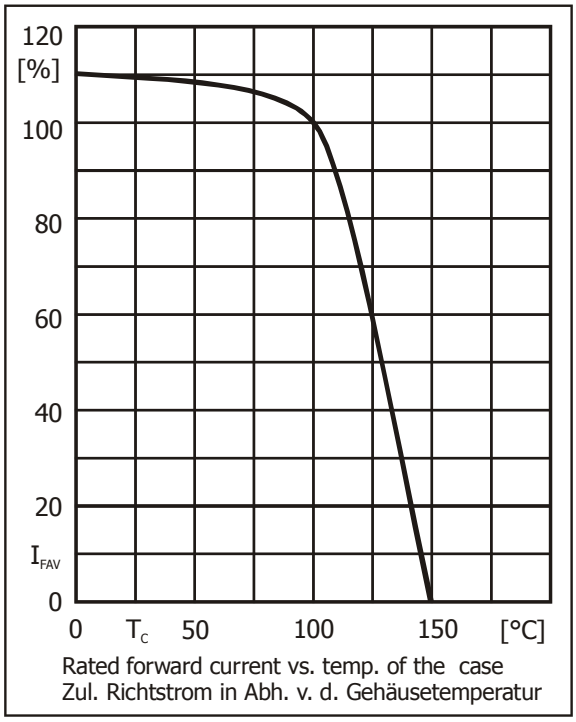
Type Typ	Repetitive peak reverse voltage Periodische Spitzensperrspannung V_{RRM} [V] [1]	Surge peak reverse voltage Stoßspitzensperrspannung V_{RSM} [V] [1]	Forward voltage Durchlass-Spannung V_F [V] [1], T_j = 25°C	
			I_F = 5 A	I_F = 8 A
PST1600A	50	50	< 1.0	< 1.1
PST1600B	100	100	< 1.0	< 1.1
PST1600D	200	200	< 1.0	< 1.1
PST1600G	400	400	< 1.0	< 1.1
PST1600J	600	600	< 1.0	< 1.1
PST1600K	800	800	< 1.0	< 1.1
PST1600M	1000	1000	< 1.0	< 1.1

Max. average forward current, R-load Dauergrenzstrom mit R-Last	T_C = 100°C T_C = 100°C	I_{FAV} I_{FAV}	8 A [1] 16 A [2]
Repetitive peak forward current Periodischer Spitzenstrom	f > 15 Hz	I_{FRM}	30 A [3]
Peak forward surge current, 50/60 Hz half sine-wave Stoßstrom für eine 50/60 Hz Sinus-Halbwelle	T_A = 25°C	I_{FSM}	135/150 A [1]
Rating for fusing, t < 10 ms Grenzlastintegral, t < 10 ms	T_A = 25°C	i^2t	90 A^2s [1]
Junction temperature – Sperrschichttemperatur Storage temperature – Lagerungstemperatur		T_j T_S	-50...+150°C -50...+175°C

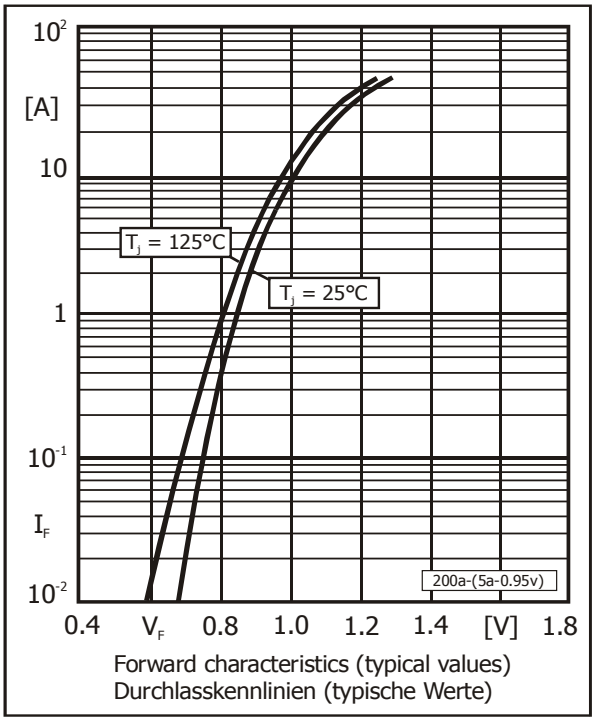
1 Per diode – Pro Diode
2 Output current when operating two devices in a full bridge configuration
Ausgangstrom bei Betrieb zweier Bauteile als Vollbrücke
3 Max. temperature of the case T_C = 100°C – Max. Temperatur des Gehäuses T_C = 100°C

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Characteristics			**Kennwerte**
Leakage current Sperrstrom	T_j = 25°C $V_R = V_{RRM}$	I_R	< 10 µA
Thermal resistance junction to case Wärmewiderstand Sperrschicht – Gehäuse		R_{thC}	< 2.5 K/W [1])



Rated forward current vs. temp. of the case
Zul. Richtstrom in Abh. v. d. Gehäusetemperatur



Forward characteristics (typical values)
Durchlasskennlinien (typische Werte)

1 Per diode – Pro Diode

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