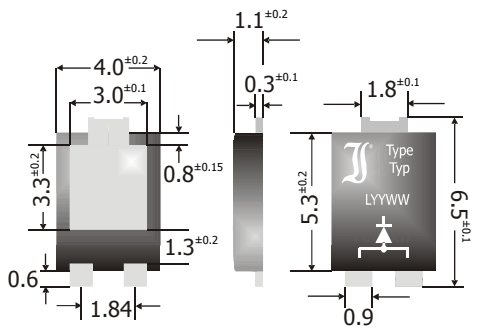
Diotec Semiconductor

PPS1530 ... PPS1550

Surface Mount Schottky Rectifier Diodes
Schottky-Gleichrichterdioden für die Oberflächenmontage

Version 2013-12-13



Dimensions - Maße [mm]

Nominal Current Nennstrom	15 A
Repetitive peak reverse voltage Periodische Spitzensperrspannung	30...50 V
Plastic case Kunststoffgehäuse	Power SMD
Weight approx. Gewicht ca.	0.1 g
Plastic material has UL classification 94V-0 Gehäusematerial UL94V-0 klassifiziert	
Standard packaging taped and reeled Standard Lieferform gegurtet auf Rolle	

RoHS Pb WEEE ELV

Green Molding
Halogen-Free

Features	**Vorteile**
Optimized trade-off between V_F and I_R	Optimaler Kompromiss zwischen V_F und I_R
Compatible to industry standard packages	Kompatibel zu industrieüblichen Gehäusen

Preliminary
Vorläufig

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

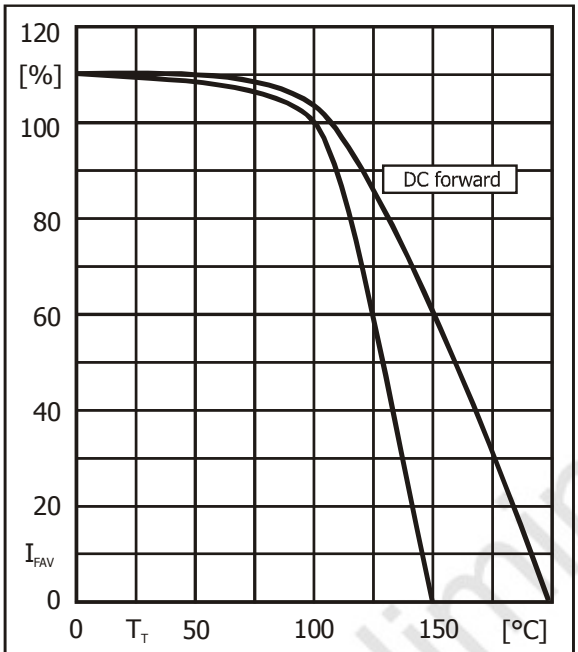
Type Typ [1])	Repetitive / Surge peak reverse voltage Periodische- / Spitzen-Sperrspannung V_{RRM} [V] / V_{RSM} [V]	Forward Voltage Durchlass-Spannung V_F [V] T_j = 125°C	Forward Voltage Durchlass-Spannung V_F [V] T_j = 25°C [2])	
		I_F = 5 A	I_F = 5 A	I_F = 15 A
PPS1530	30	typ. 0.31	< 0.45	< 0.55
PPS1540	40	typ. 0.31	< 0.45	< 0.55
PPS1545	45	typ. 0.31	< 0.45	< 0.55
PPS1550	50	typ. 0.36	< 0.55	< 0.69

Max. average forward rectified current, R-load Dauergrenzstrom in Einwegschaltung mit R-Last	T_C = 100°C	I_{FAV}	15A [2])
Repetitive peak forward current Periodischer Spitzenstrom	f > 15 Hz	I_{FRM}	50 A [2])
Peak forward surge current, 50/60 Hz half sine-wave Stoßstrom für eine 50/60 Hz Sinus-Halbwelle	T_A = 25°C	I_{FSM}	250/275 A [2])
Rating for fusing, t < 10 ms Grenzlastintegral, t < 10 ms	T_A = 25°C	i^2t	312 A^2s [2])
Junction temperature – Sperrschichttemperatur ... in DC forward mode – bei Gleichstrom-Durchlassbetrieb Storage temperature – Lagerungstemperatur		T_j T_j T_S	-50...+150°C ≤ 200°C [1]) -50...+175°C

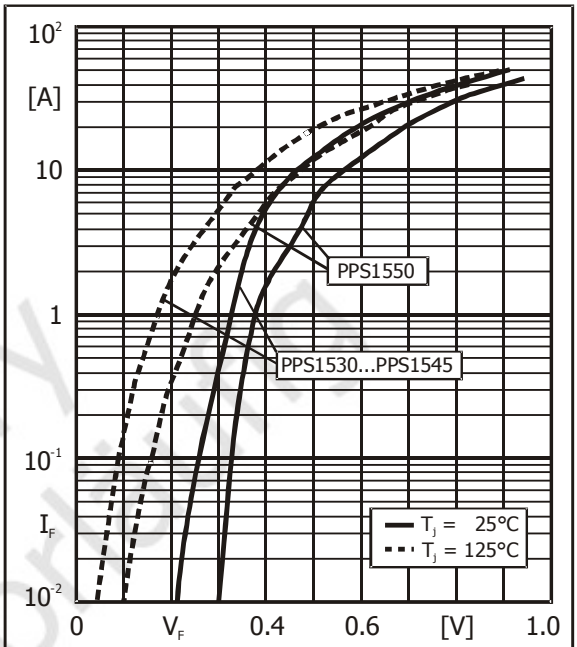
1 50 V to 100 V types on request – 50 V bis 100 V Ausführung auf Anfrage
2 Both anode pins connected – Beide Anodenanschlüsse kontaktiert
1 For more details, ask for the Diotec Application Note "Reliability of Bypass Diodes"
Weitere Infos in der Diotec Applikationsschrift „Reliability of Bypass Diodes"

Characteristics **Kennwerte**

Leakage current Sperrstrom	T_j = 25°C T_j = 100°C	$V_R = V_{RRM}$ $V_R = V_{RRM}$	I_R I_R	< 500 µA typ. 15 mA
Thermal resistance junction to case Wärmewiderstand Sperrschicht - Gehäuse			R_{thC}	< 2.0 K/W
Typical Junction Capacitance Typische Sperrschichtkapazität		V_R = 4 V	C_J	800 pF

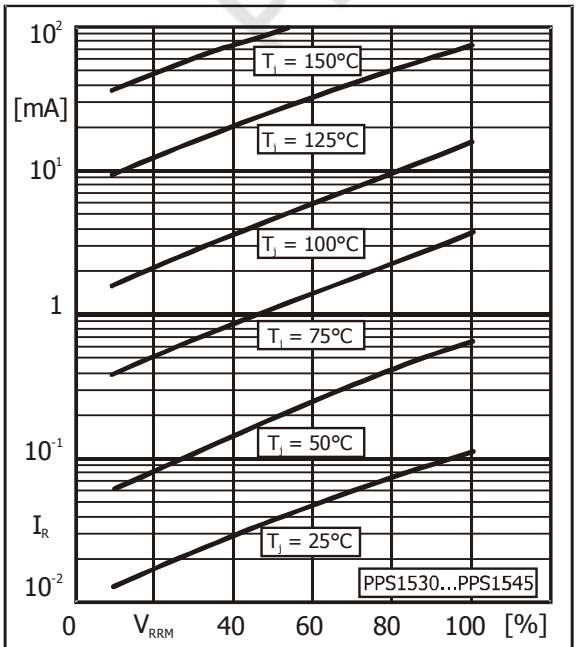


Rated forward current vs. temp. of the terminals
Zul. Richtstrom in Abh. v. d. Temp. der Terminals

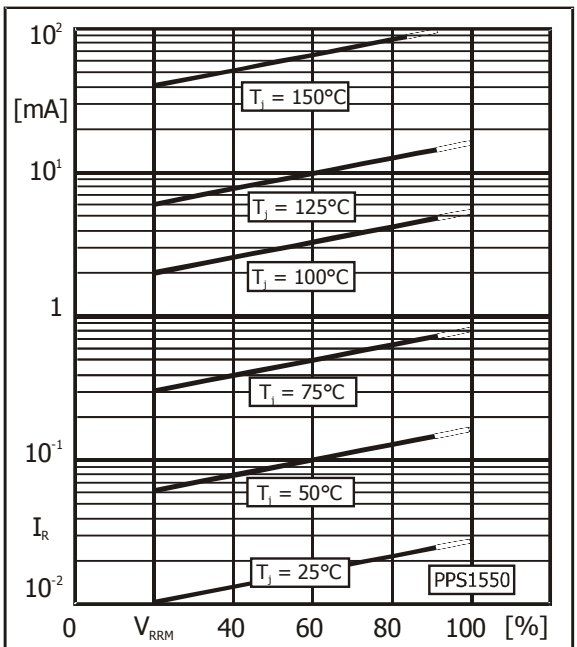


Forward characteristics (typical values)
Durchlasskennlinien (typische Werte)

Preliminary
Vorläufig



Typ. instantaneous leakage current vs. rev. voltage
Typ. Sperrstrom (Augenblickswert) ü. Sperrspannung



Typ. instantaneous leakage current vs. rev. voltage
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