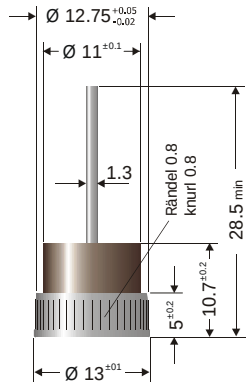
BYZ35A22 ... BYZ35A47, BYZ35K22 ... BYZ35K47

Silicon-Protectifiers with TVS characteristic – High Temperature Diodes
Silizium-Schutzgleichrichter mit Begrenzereigenschaft – Hochtemperatur-Dioden

Version 2006-04-27



Dimensions - Maße [mm]

Nominal Current Nennstrom	35 A
Nominal breakdown voltage Nominale Abbruchspannung	22 ... 47 V
Metal press-fit case with plastic cover Metall-Einpressgehäuse mit Plastik-Abdeckung	
Weight approx. Gewicht ca.	10 g
Compound has classification UL94V-0 Vergussmasse nach UL94V-0 klassifiziert	
Standard packaging: bulk Standard Lieferform: lose im Karton	

Maximum ratings **Grenzwerte**

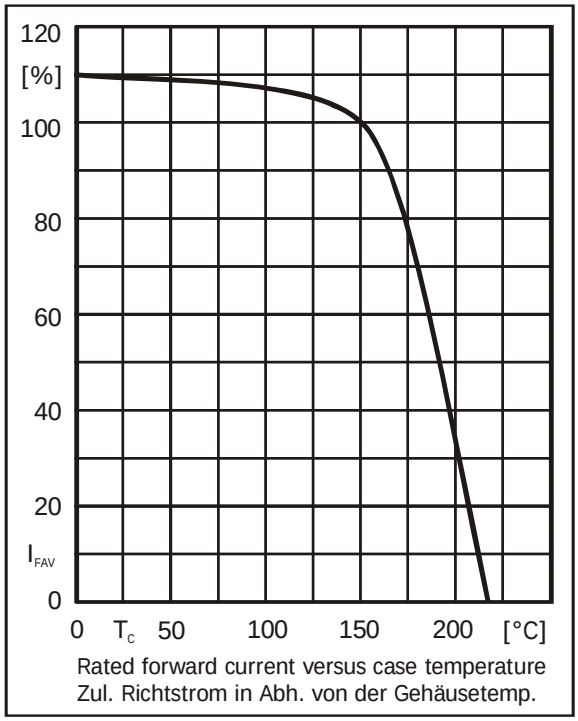
Type / Typ Wire to / Draht an		Breakdown voltage Abbruchspannung I_T = 100 mA		Reverse voltage Sperrspannung I_R = 5 µA	Max. clamping voltage Max. Begrenzerspanng. at / bei I_{pp}, t_p = 1 ms	
Anode	Cathode	V_{BRmin} [V]	V_{BRmax} [V]	V_R [V]	V_C [V]	I_{pp} [A]
BYZ35A22	BYZ35K22	19.8	24.2	> 17.8	31.9	157
BYZ35A27	BYZ35K27	24.3	29.7	> 21.8	39.1	128
BYZ35A33	BYZ35K33	29.7	36.3	> 26.8	47.7	105
BYZ35A39	BYZ35K39	35.1	42.9	> 31.6	56.4	89
BYZ35A47	BYZ35K47	42.3	51.7	> 38.1	67.8	74

Max. average forward rectified current, R-load Dauergrenzstrom in Einwegschaltung mit R-Last	T_C = 150°C	I_{FAV}	35 A
Repetitive peak forward current Periodischer Spitzenstrom	f > 15 Hz	I_{FRM}	72 A [1])
Peak forward surge current, 50/60 Hz half sine-wave Stoßstrom für eine 50/60 Hz Sinus-Halbwelle	T_A = 25°C	I_{FSM}	360/400 A
Rating for fusing, t < 10 ms Grenzlastintegral, t < 10 ms	T_A = 25°C	i^2t	660 A^2s
Operating junction temperature – Sperrschichttemperatur Storage temperature – Lagerungstemperatur		T_j T_S	-50...+215°C -50...+215°C
Max. junction temperature in case of “Load-Dump“ Max. Sperrschichttemperatur bei “Load-Dump“		T_{jmax}	+280°C

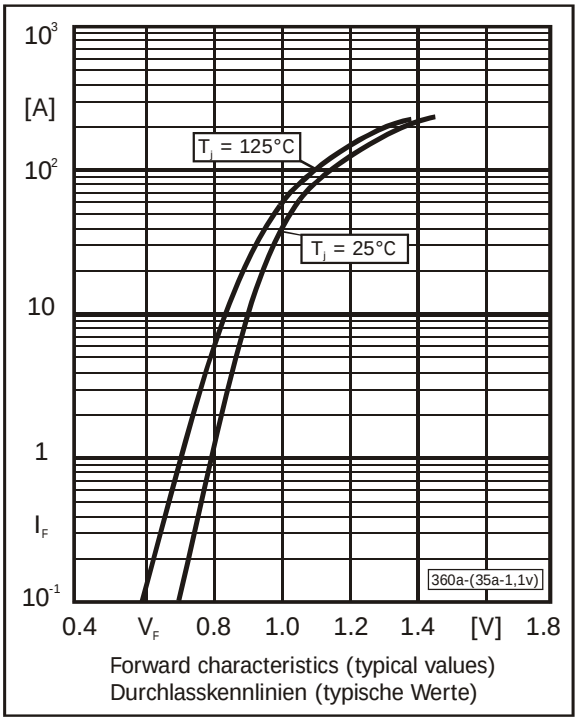
1 Max. case temperature T_C = 150°C – Max. Gehäusetemperatur T_C = 150°C

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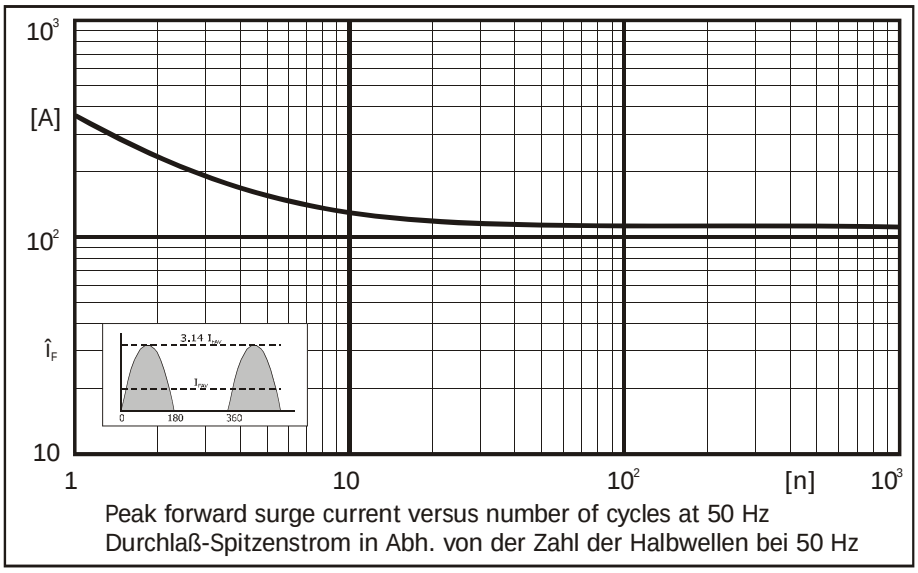
Characteristics			**Kennwerte**
Forward Voltage Durchlass-Spannung	T_j = 25°C I_F = 35 A	V_F	< 1.1 V
Thermal Resistance Junction – Case Wärmewiderstand Sperrschicht – Gehäuse		R_{thC}	< 0.8 K/W
Maximum pressing force Maximaler Einpressdruck		F_{pmax}	7 kN



Rated forward current versus case temperature
Zul. Richtstrom in Abh. von der Gehäusetemp.



Forward characteristics (typical values)
Durchlasskennlinien (typische Werte)



Peak forward surge current versus number of cycles at 50 Hz
Durchlaß-Spitzenstrom in Abh. von der Zahl der Halbwellen bei 50 Hz