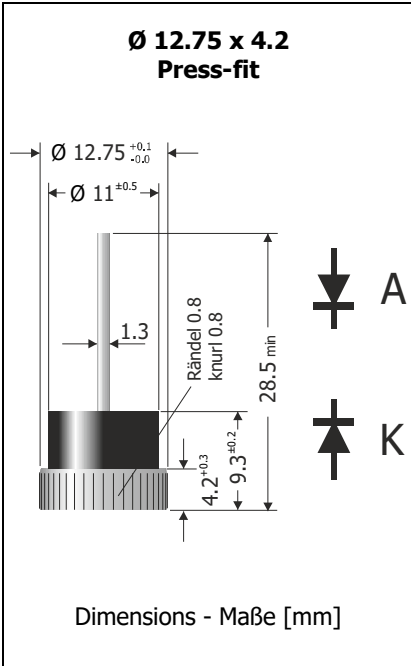


BYZ35A22 ... BYZ35A47 BYZ35K22 ... BYZ35K47 Press-Fit Diodes – Protectifiers® Einpress-Dioden – Protectifiers®	I_{FAV} = 35 A V_F < 1.1 V T_{jmax} = 200°C	V_{WM} = 17.8 ... 38.1 V V_{BR} = 22 ... 47 V I_{FSM} = 360/400 A
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Version 2017-12-22



Typical Applications

On-board alternators
 Load dump protection
 Commercial grade ¹⁾

Features

TVS (suppressor) characteristic
 High junction temperature
 Press-fit assembly into aluminum plate
 Two polarity versions:
 A = Anode to lead wire
 K = Cathode to lead wire
 Compliant to RoHS, REACH, Conflict Minerals ¹⁾

Mechanical Data ¹⁾

Packed in cardboard trays 300
 Weight approx. 10 g
 Case material UL 94V-0
 Solder & assembly conditions 260°C/10s
 MSL N/A

Typische Anwendungen

Bordnetz-Generatoren
 "Load dump"-Schutz
 Standardausführung ¹⁾

Besonderheiten

TVS-(Begrenzer-)Charakteristik
 Hohe Sperrschichttemperatur
 Einpressmontage in Alu-Kühlblech
 Zwei Polaritäten:
 A = Anode am Anschlussdraht
 K = Kathode am Anschlussdraht
 Konform zu RoHS, REACH, Konfliktmineralien ¹⁾

Mechanische Daten ¹⁾

Verpackt in Einlegekartons
 Gewicht ca.
 Gehäusematerial
 Löt- und Einbaubedingungen

Maximum ratings ²⁾

Grenzwerte ²⁾

Max. average forward current – Dauergrenzstrom	T _C = 150°C ³⁾	I _{FAV}	35 A
Repetitive peak forward current – Periodischer Spitzenstrom	f > 15 Hz T _C = 150°C ³⁾	I _{FRM}	72 A
Peak forward surge current Stoßstrom in Fluss-Richtung	Half sine-wave 50 Hz (10 ms) Sinus-Halbwelle 60 Hz (8.3 ms)	I _{FSM}	360 A 400 A
Rating for fusing – Grenzlastintegral	t < 10 ms	i ² t	600 A ² s
Junction temperature – Sperrschichttemperatur Storage temperature – Lagerungstemperatur		T _j T _s	-50...+200°C -50...+200°C
Peak junction temperature in case of load dump Spitzensperrschichttemperatur im "Load dump" Fall	t < 400 ms	T _{JM}	+215°C
Maximum pressing force – Maximaler Einpressdruck		F _{PM}	4 kN

Characteristics (T_j = 25°C)

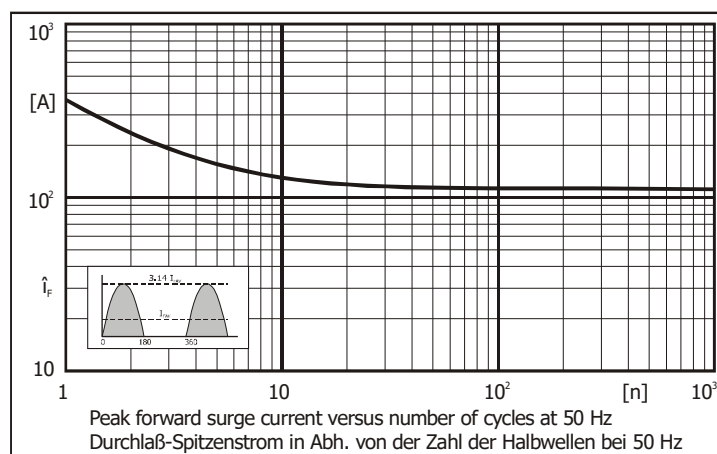
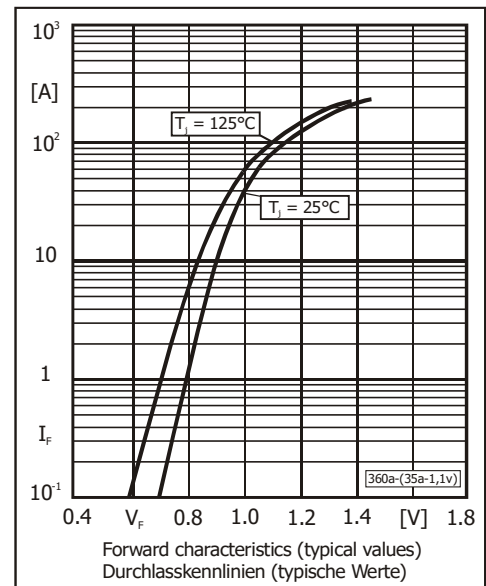
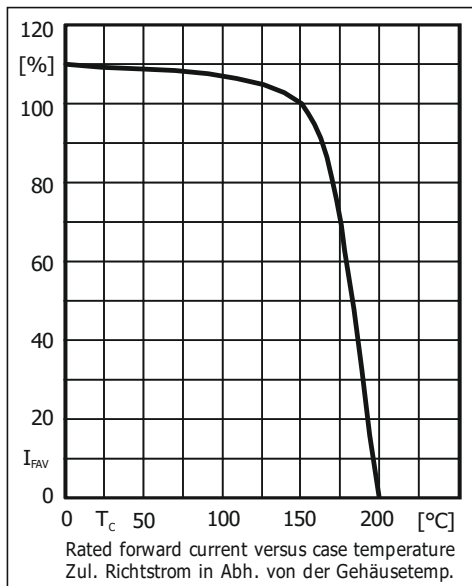
Kennwerte (T_j = 25°C)

Type / Typ		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	
Wire to / Draht an		V _{BRmin} [V]	V _{BRmax} [V]	V _R [V]	V _C [V]	I _{pp} [A]
Anode	Cathode					
BYZ35A22	BYZ35K22	19.8	24.2	> 17.8	31.9	157
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

1 Please note the [detailed information on our website](#) or at the beginning of the data book
 Bitte beachten Sie die [detaillierten Hinweise auf unserer Internetseite](#) bzw. am Anfang des Datenbuches
 2 T_A = 25°C unless otherwise specified – T_A = 25°C wenn nicht anders angegeben
 3 Temperature measured at the metallic base – Temperatur am Metallsockel gemessen

Characteristics
Kenwerte

Forward voltage Durchlass-Spannung	$T_j = 25^\circ\text{C}$	$I_F = 35\text{ A}$	V_F	$< 1.1\text{ V}$
Typical junction capacitance Typische Sperrschichtkapazität		$V_R = 4\text{ V}$	C_j	430 pF
Reverse recovery time Sperrverzögerung	$I_F = 0.5\text{ A through/über}$ $I_R = 1\text{ A to } I_R = 0.25\text{ A}$		t_{rr}	typ. 1500 ns
Thermal resistance junction to case Wärmewiderstand Sperrschicht – Gehäuse			R_{thc}	$< 0.8\text{ K/W}^1)$



Disclaimer: See data book page 2 or [website](#)
Haftungsausschluss: Siehe Datenbuch Seite 2 oder [Internet](#)

1 Temperature measured at the metallic base – Temperatur am Metallsockel gemessen