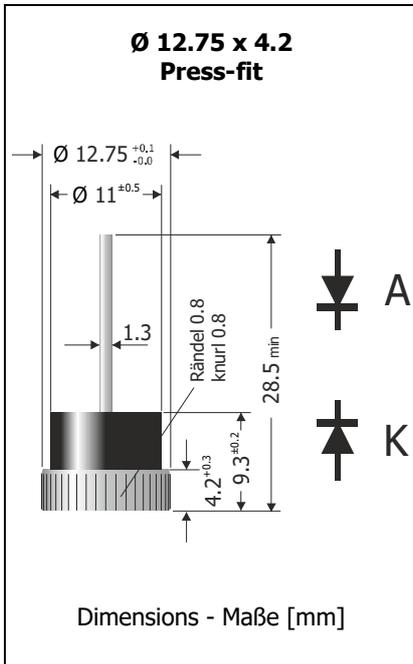


<b>BYZ35A22 ... BYZ35A47   BYZ35K22 ... BYZ35K47</b> <b>Press-Fit Diodes – Protectifiers®</b> <b>Einpress-Dioden – Protectifiers®</b>	<b>I<sub>FAV</sub> = 35 A</b> <b>V<sub>F</sub> &lt; 1.1 V</b> <b>T<sub>jmax</sub> = 200°C</b>	<b>V<sub>WM</sub> = 17.8 ... 38.1 V</b> <b>V<sub>BR</sub> = 22 ... 47 V</b> <b>I<sub>FSM</sub> = 360/400 A</b>
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Version 2019-05-27



**Typical Applications**

On-board alternators  
 Load dump protection  
 Commercial grade <sup>1)</sup>

**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 <sup>1)</sup>

**Mechanical Data <sup>1)</sup>**

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 <sup>1)</sup>

**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 <sup>1)</sup>

**Mechanische Daten <sup>1)</sup>**

Verpackt in Einlegekartons  
 Gewicht ca. Gehäusematerial  
 Löt- und Einbaubedingungen

**Maximum ratings <sup>2)</sup>**

**Grenzwerte <sup>2)</sup>**

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

**Characteristics (T<sub>j</sub> = 25°C)**

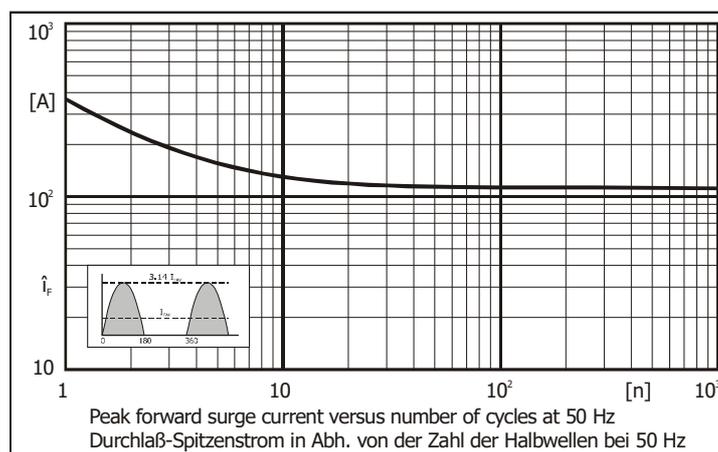
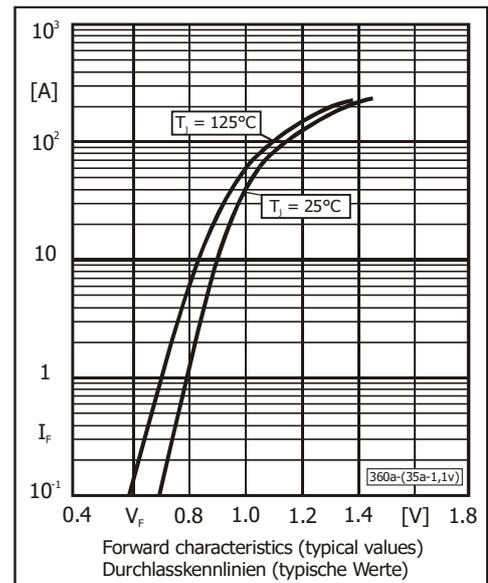
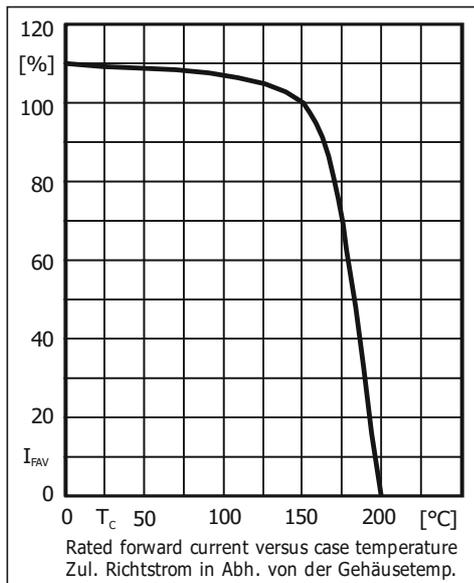
**Kennwerte (T<sub>j</sub> = 25°C)**

Type / Typ		Breakdown voltage Abbruchspannung I <sub>T</sub> = 100 mA		Reverse voltage Sperrspannung I <sub>R</sub> = 5 µA	Max. clamping voltage Max. Begrenzerspannung at / bei I <sub>pp</sub> , t <sub>p</sub> = 1 ms	
Wire to / Draht an		V <sub>BRmin</sub> [V]	V <sub>BRmax</sub> [V]	V <sub>R</sub> [V]	V <sub>C</sub> [V]	I <sub>pp</sub> [A]
Anode	Cathode					
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

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<sub>A</sub> = 25°C unless otherwise specified – T<sub>A</sub> = 25°C wenn nicht anders angegeben  
 3 Temperature measured at the metallic base – Temperatur am Metallsockel gemessen

**Characteristics**
**Kennwerte**

Forward voltage Durchlass-Spannung	$T_j = 25^\circ\text{C}$	$I_F = 35\text{ A}$	$V_F$	< 1.1 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
Typical thermal resistance junction to case Typischer Wärmewiderstand Sperrschicht – Gehäuse			$R_{thC}$	0.8 K/W <sup>1)</sup>



**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

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