



## DESCRIPTION

The BYV26C~BYV26E is available in DO-41 Package

## ORDERING INFORMATION

Package Type	Part Number
DO-41	BYV26C
	BYV26E
Note	SPQ:3,000pcs/Box
AiT provides all RoHS Compliant Products	

## PIN DESCRIPTION



## FEATURES

- Plastic package has Underwriters Laboratories Flammability Classification 94V-0
- Ideally suited for use in very high frequency switching
- Ultrafast recovery time
- Excellent high temperature switching
- Soft recovery characteristics
- Glass passivated chip
- High temperature soldering guaranteed: 260°C/10 seconds
- Available in DO-41 Package

## MECHANICAL DATA

Case: JEDEC DO-41, molded plastic body  
Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026  
Polarity: Color band denotes cathode end  
Mounting Position: Any  
Weight: 0.011 oz., 0.284g  
Handling precaution: None



## MAXIMUM & THERMAL CHARACTERISTICS RATINGS

at 25°C ambient temperature unless otherwise specified

Parameter	Symbol	BYV26C	BYV26E	Unit
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	600	1000	V
Maximum RSM Voltage	$V_{RSM}$	420	700	V
Maximum DC Blocking Voltage	$V_{DC}$	600	1000	V
Maximum Average Forward Rectified Current 0.375" (9.5mm) lead length at $T_A = 75^\circ\text{C}$	$I_{F(AV)}$	1.0		A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed On Rated Load (JEDEC Method)	$I_{FSM}$	30		A
Maximum Full Load Reverse Current, Full Cycle Average, 0.375" (9.5mm) Lead Lengths at $T_A = 55^\circ\text{C}$	$I_{R(AV)}$	100		$\mu\text{A}$
Typical Thermal Resistance <sup>NOTE2</sup>	$R_{\theta JA}$	50		$^\circ\text{C/W}$
Operating Junction And Storage Temperature Range	$T_J, T_{STG}$	-50-+150		$^\circ\text{C}$

Stresses above may cause permanent damage to the device. These are stress ratings only and functional operation of the device at these or any other conditions beyond those indicated in the Electrical Characteristics are not implied. Exposure to absolute maximum rating conditions for extended periods may affect device reliability.

## ELECTRICAL CHARACTERISTICS

at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	BYV26C	BYV26E	Unit
Maximum instantaneous forward voltage at 1.0A	$V_F$	2.50		V
Maximum DC reverse current $T_A = 25^\circ\text{C}$ at rated DC blocking voltage $T_A = 125^\circ\text{C}$	$I_R$	10 200		$\mu\text{A}$
Maximum reverse recovery time <sup>NOTE1</sup>	$t_{rr}$	35	75	ns
Typical junction capacitance at 4.0V, 1MHz	$C_J$	17		pF

NOTE1:  $I_F = 0.5\text{A}$ ,  $I_R = 1.0\text{A}$ ,  $I_{RR} = 0.25\text{A}$

NOTE2: Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted



**RATINGS AND CHARACTERISTIC CURVES**

T<sub>A</sub> = 25°C unless otherwise noted

Figure 1. Forward Current Derating Curve

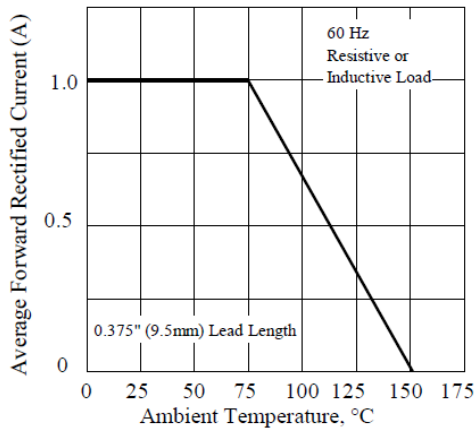


Figure 3. Typical Instantaneous Forward Characteristics

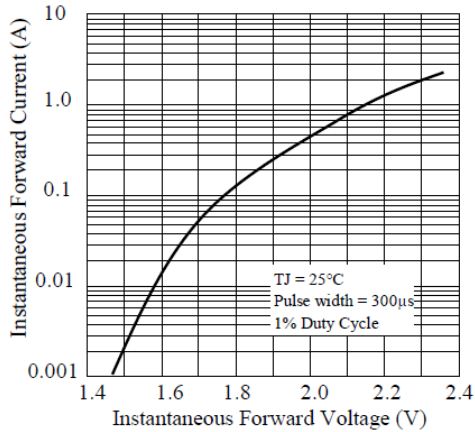


Figure 5. Typical Transient Thermal Impedance

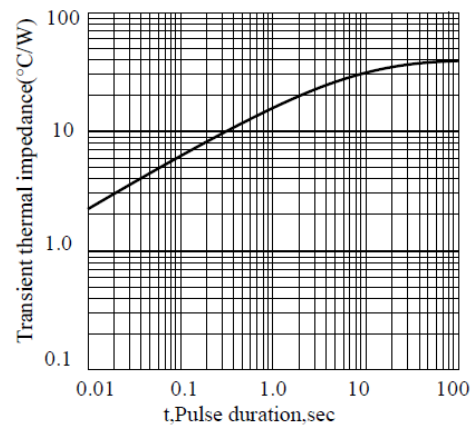


Figure 2. Maximum Non-repetitive Peak Forward Surge Current

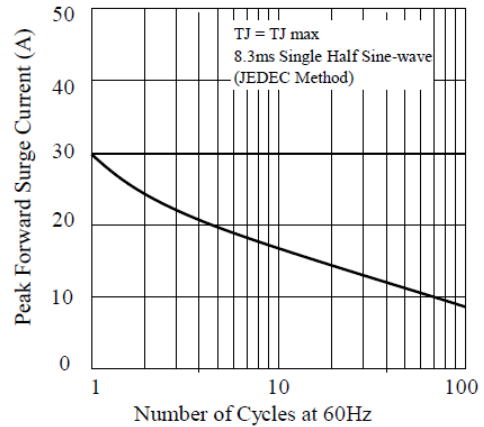


Figure 4. Typical Reverse Characteristics

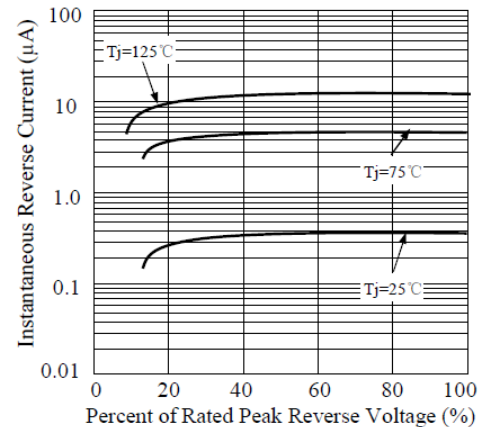
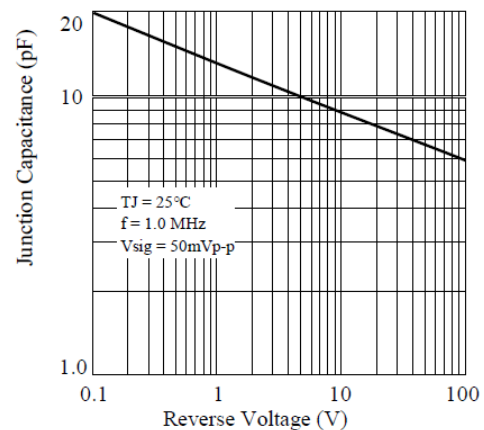


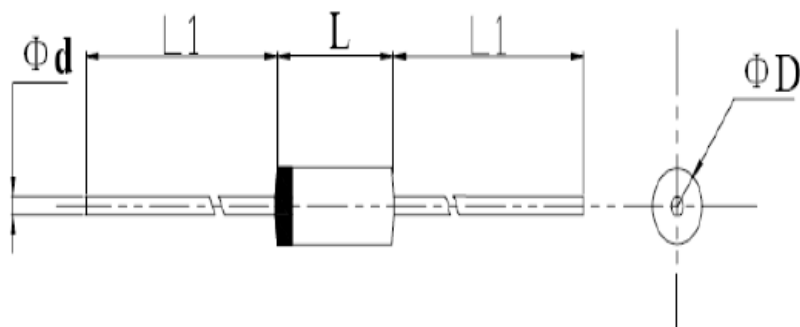
Figure 6. Typical Junction Capacitance





## PACKAGE INFORMATION

Dimension in DO-41 (Unit: mm)



DIM	INCHES		MILLIMETERS	
	Min	Max	Min	Max
L	0.166	0.205	4.2	5.2
L1	1.0	-	25.4	-
$\Phi D$	0.080	0.107	2.0	2.7
$\Phi d$	0.028	0.034	0.7	0.9



## IMPORTANT NOTICE

AiT Components (AiT) reserves the right to make changes to any its product, specifications, to discontinue any integrated circuit product or service without notice, and advises its customers to obtain the latest version of relevant information to verify, before placing orders, that the information being relied on is current.

AiT Components' integrated circuit products are not designed, intended, authorized, or warranted to be suitable for use in life support applications, devices or systems or other critical applications. Use of AiT products in such applications is understood to be fully at the risk of the customer. As used herein may involve potential risks of death, personal injury, or servers property, or environmental damage. In order to minimize risks associated with the customer's applications, the customer should provide adequate design and operating safeguards.

AiT Components assumes no liability to customer product design or application support. AiT warrants the performance of its products of the specifications applicable at the time of sale.