

# DIGITRON SEMICONDUCTORS

BYV95 & BYV96 SERIES

FAST RECOVERY RECTIFIERS

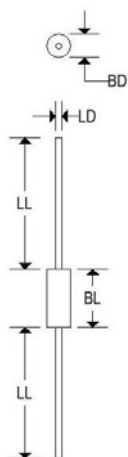
## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Parameter	Symbol	BYV95A	BYV95B	BYV95C	BYV96D	BYV96E	Units
Maximum recurrent peak reverse voltage	$V_{RRM}$	200	400	600	800	1000	Volts
Maximum RMS voltage	$V_{RMS}$	140	280	420	560	700	Volts
Maximum DC blocking voltage	$V_{DC}$	200	400	600	800	1000	Volts
Minimum avalanche breakdown voltage @ 100 $\mu$ A	$V_{(BR)}$	300	500	700	900	1100	Volts
Maximum average forward rectified current 0.375" lead length at $T_A = 55^\circ\text{C}$	$I_{(AV)}$	1.5					Amps
Peak forward surge current, 10ms single half sine-wave superimposed on rated load @ $T_J = 165^\circ$	$I_{FSM}$	35.0					Amps
Maximum instantaneous forward voltage @1.5A $T_J = 25^\circ\text{C}$ $T_J = 165^\circ\text{C}$	$V_F$	1.6 1.35					Volts
Maximum full load reverse current full cycle average, 0.375" lead length at $T_J = 25^\circ\text{C}$ $T_J = 165^\circ\text{C}$	$I_{R(AV)}$	1.0 150.0					$\mu$ A
Maximum DC reverse current at rated DC blocking voltage	$I_R$	2.0					$\mu$ A
Maximum reverse recovery time <sup>(1)</sup>	$t_{rr}$	250			300		ns
Typical junction capacitance <sup>(2)</sup>	$C_J$	10.0					pF
Typical thermal resistance <sup>(3)</sup>	$R_{\theta JA}$	55.0					$^\circ\text{C}/\text{W}$
Operating junction temperature range	$T_J$	-65 to +175					$^\circ\text{C}$
Storage temperature range	$T_{stg}$	-65 to +200					$^\circ\text{C}$

1. Measure with  $I_F = 0.5\text{A}$ ,  $I_R = 1.0\text{A}$ ,  $I_{rr} = 0.25\text{A}$
2. Measured at 1.0 MHz and applied reverse voltage of 4.0Volts
3. Thermal resistance from junction to ambient at 0.375" lead length, PC board mounted

## MECHANICAL CHARACTERISTICS

Case	SOD-57
Marking	Body painted, alpha-numeric
Polarity	Cathode band



	SOD-57			
	Inches		Millimeters	
	Min	Max	Min	Max
BD	-	0.142	-	3.600
BL	-	0.157	-	4.000
LD	-	0.032	-	0.820
LL	1.024	-	26.000	-

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Available Non-RoHS (standard) or RoHS compliant (add PBF suffix).  
 Available as "HR" (high reliability) screened per MIL-PRF-19500, JANTX level. Add "HR" suffix to base part number.

