

# DIGITRON SEMICONDUCTORS

1N6639-1N6641

SWITCHING RECTIFIERS

## MAXIMUM RATINGS

Rating	Value	Unit
Operating and storage temperature range	-65 to +175	°C
Operating current	300	mA
Derating above $T_L = 75^\circ\text{C}$ , $L = 3/8''$	3	mA/°C
Surge current (8.3ms)	2.5	A

## ELECTRICAL CHARACTERISTICS

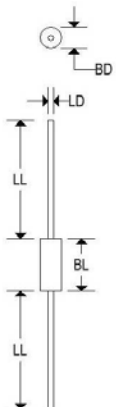
Part number	Minimum reverse breakdown voltage	Working peak reverse voltage	Maximum reverse current	Maximum reverse current	Maximum forward recovery time	Maximum reverse recovery time	Capacitance
	@10 $\mu\text{A}$		@ $T_A = 25^\circ\text{C}$	@ $T_A = 150^\circ\text{C}$	$I_F = 200\text{mA}$		
	$V_{BRR}$		$V_R = V_{RWM}$	$V_R = V_{RWM}$			
	V(pk)		$I_{R1}$	$I_{R2}$	$T_{FR}$		
		nA	$\mu\text{A}$	ns	ns	pF	
1N6639	100	75	100	100	10	4.0	2.5
1N6640	75	50	100	100	10	4.0	2.5
1N6641	75	50	100	100	10	5.0	3.0

## FORWARD VOLTAGE

Part number	Forward voltage		
	$V_F @ I_F$		
	Volts		mA (pulsed)
	Min	Max	
1N6639	-	1.20	500
1N6640	0.54	0.62	1
	0.76	0.86	50
	0.82	0.92	100
	0.87	1.00	200
1N6641	-	1.10	200

## MECHANICAL CHARACTERISTICS

Case	DO-35
Marking	Body painted, alpha-numeric
Polarity	Cathode band



	DO-35			
	Inches		Millimeters	
	Min	Max	Min	Max
BD	0.065	0.090	1.400	2.290
BL	0.120	0.200	3.050	5.080
LD	0.018	0.022	0.460	0.560
LL	1.000	1.500	25.400	38.100

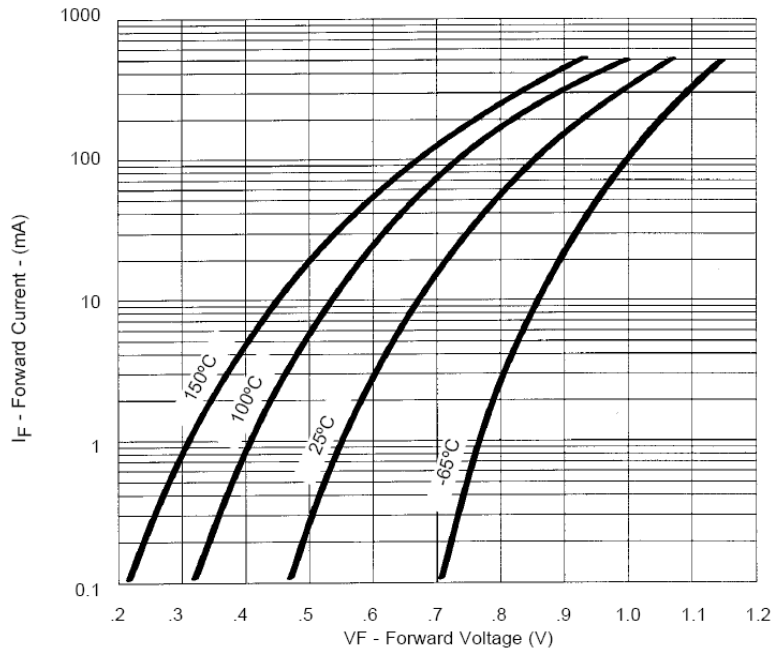
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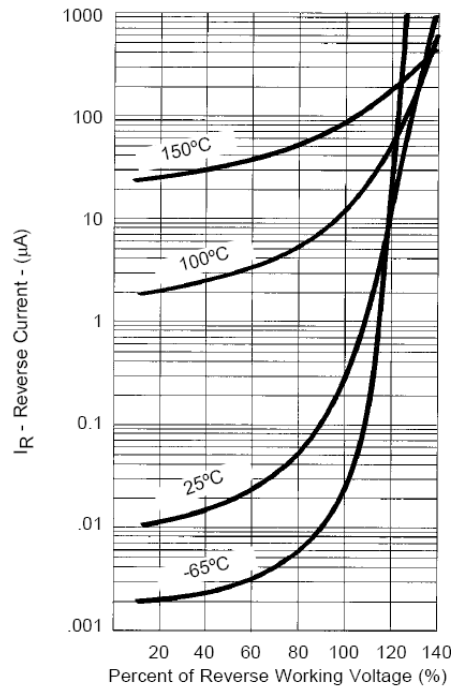
SWITCHING RECTIFIERS

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.



Typical Forward Current vs Forward Voltage



Typical Reverse Current vs Reverse Voltage

NOTE : All temperatures shown on graphs are junction temperatures