

# DIGITRON SEMICONDUCTORS

1N645-1N649

SILICON RECTIFIER DIODES

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

## MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Power dissipation at 3/8" from body, $T_L = 75^\circ\text{C}$	$P_{tot}$	600	mW
Average forward current at $T_L = 75^\circ\text{C}$	$I_{AV}$	400	mA
Operating and storage temperature range	$T_J, T_{stg}$	-65 to 175	$^\circ\text{C}$
Thermal impedance	$Z_{\theta JX}$	35	$^\circ\text{C/W}$
Thermal resistance	$R_{\theta JL}$	250	$^\circ\text{C/W}$

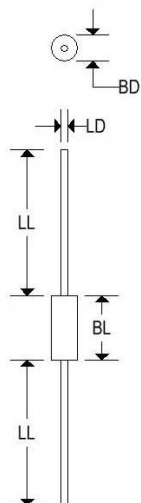
## ELECTRICAL CHARACTERISTICS (@ 25°C unless otherwise stated)

Part number	Reverse voltage	Minimum breakdown voltage@ 100 $\mu\text{A}$	Maximum average rectified current		Forward voltage drop		Maximum reverse leakage current		Maximum surge current <sup>(1)</sup>	Typical junction capacitance @ -12V
	$V_R$	$B_V$	$I_O$	$I_O$	$V_F @ I_F = 400\text{mA}$		$I_R @ V_R$		$I_{FSM}$	$C_O$
	Volts	Volts	25°C	150°C	Min	Max	25°C	150°C	Amps	pF
1N645	225	275	0.4	0.15	0.8	1.0	0.05	50	5	20
1N646	300	360	0.4	0.15	0.8	1.0	0.05	50	5	20
1N647	400	480	0.4	0.15	0.8	1.0	0.05	50	5	20
1N648	500	600	0.4	0.15	0.8	1.0	0.05	50	5	20
1N649	600	720	0.4	0.15	0.8	1.0	0.05	50	5	20

Note 1: Surge current @  $T_A = 25^\circ$  to  $150^\circ\text{C}$ ,  $t_p = 120$  sec.

## MECHANICAL CHARACTERISTICS

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



	DO-35A			
	Inches		Millimeters	
	Min	Max	Min	Max
BD	0.055	0.095	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