

# DIGITRON SEMICONDUCTORS

SD41

30 AMP SCHOTTKY BARRIER RECTIFIERS

## ELECTRICAL CHARACTERISTICS

Characteristics	Symbol	Value	Test Conditions
Working peak reverse voltage	$V_{RWM}$	35V	
Repetitive peak reverse voltage	$V_{RRM}$	35V	
Average forward current	$I_{F(AV)}$	30A	$T_C = 140^\circ\text{C}$ , square wave, $R_{eJC} = 1.6^\circ\text{C}/\text{W}$
Maximum surge current	$I_{FSM}$	600A	8.3ms, half-sine, $T_J = 175^\circ\text{C}$
Maximum repetitive peak reverse current	$I_{R(OV)}$	2A	$f = 1\text{KHz}$ , $25^\circ\text{C}$ , 1 $\mu\text{sec}$ square wave
Maximum peak forward voltage	$V_{FM}$	0.57V	$I_{FM} = 30\text{A}$ , $T_J = 175^\circ\text{C}^*$
Maximum peak forward voltage	$V_{FM}$	0.68V	$I_{FM} = 30\text{A}$ , $T_J = 25^\circ\text{C}^*$
Maximum peak reverse current	$I_{RM}$	25mA	$V_{RRM}$ , $T_J = 125^\circ\text{C}^*$
Maximum peak reverse current	$I_{RM}$	1.5mA	$V_{RRM}$ , $T_J = 25^\circ\text{C}$
Typical junction capacitance	$C_J$	1350pF	$V_R = 5.0\text{V}$ , $T_J = 25^\circ\text{C}$

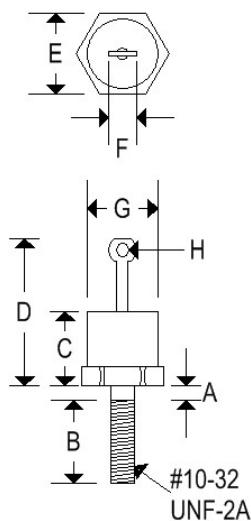
\*Pulse test: pulse width 300 $\mu\text{sec}$ , duty cycle 2%

## THERMAL CHARACTERISTICS

Characteristics	Symbol	Test Conditions
Storage temperature range	$T_{stg}$	-55° to 175°C
Operating junction temperature range	$T_J$	-55° to 175°C
Maximum thermal resistance	$R_{eJC}$	1.6°C/W junction to case
Typical thermal resistance (greased)	$R_{eCS}$	0.5°C/W case to sink

## MECHANICAL CHARACTERISTICS

Case	DO-4(R)
Marking	Alpha numeric
Normal polarity	Cathode is stud
Reverse polarity	Anode is stud (add "R" suffix)



	DO-4(R)			
	Inches		Millimeters	
	Min	Max	Min	Max
A	-	0.078	-	1.981
B	0.422	0.453	10.719	11.506
C	-	0.405	-	10.287
D	-	0.800	-	20.320
E	0.420	0.440	10.668	11.176
F	-	0.250	-	6.350
G	-	0.424	-	10.770
H	0.066	-	1.676	-

Available Non-RoHS (standard) or RoHS compliant (add PBF suffix).

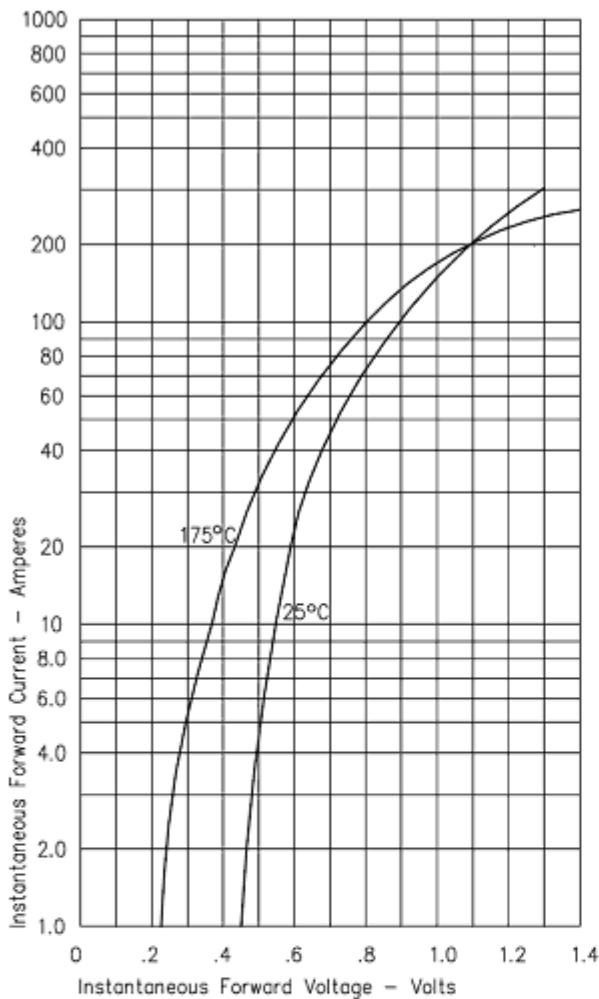
Available as "HR" (high reliability) screened per MIL-PRF-19500, JANTX level. Add "HR" suffix to base part number.

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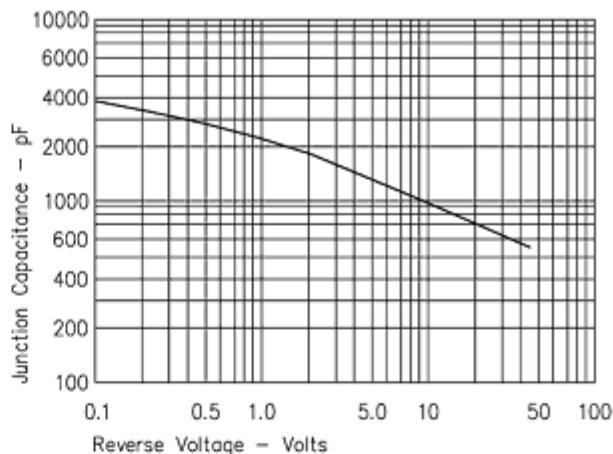
SD41

25 AMP SCHOTTKY BARRIER DIODES

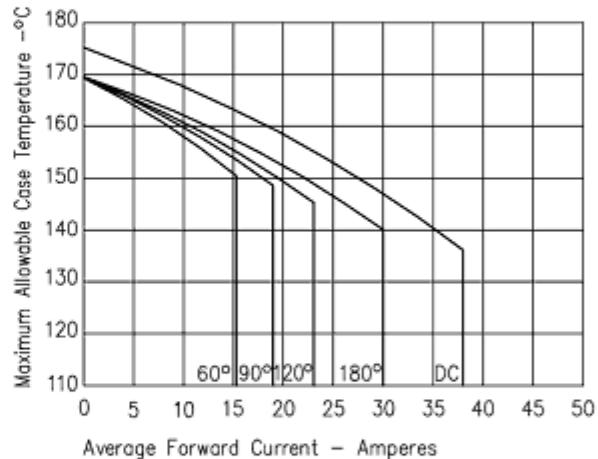
Typical Forward Characteristics



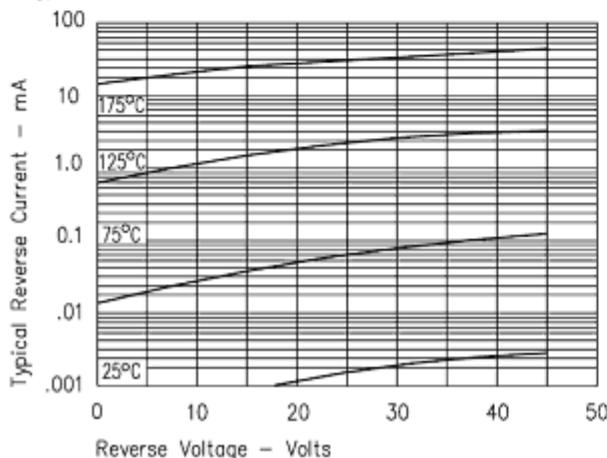
Typical Junction Capacitance



Forward Current Derating



Typical Reverse Characteristics



Maximum Forward Power Dissipation

