

# SPD5823 THRU SPD5825

## 5 AMP

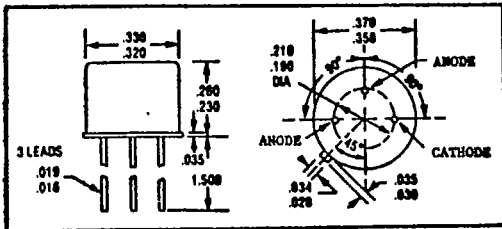
# SCHOTTKY RECTIFIERS

## 20-40 VOLTS



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### CASE STYLE TO-5



### FEATURES

- ULTRA LOW LEAKAGE 5mA @ 100°C
- EXTREMELY LOW FORWARD VOLTAGE DROP  
600 mV MAX
- PIV TO 40 VOLTS
- HERMETICALLY SEALED TO-5 PACKAGE
- HIGH SURGE CAPABILITY
- HI REL VERSIONS PROCESSED TO TX, TXV,  
AND S LEVEL

### MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Peak Repetitive Reverse Voltage and DC Blocking Voltage	$V_{RM} (rep)$ $V_R$	20 30 40	Volts
RMS Reverse Voltage	$V_r$	14 21 28	Volts
Half Wave Rectified Forward Current, Averaged Over Full Cycle (Resistive Load, 60Hz, Sine Wave, $T_C = 55^\circ C$ )	$I_0$	5.0	Amps
Peak Repetitive Forward Current ( $T_C = 55^\circ C$ , 8.3 ms Pulse, Allow Junction to Reach Equilibrium Between Pulses)	$I_{FM} (rep)$	15	Amps
Peak Surge Current ( $T_C = 55^\circ C$ , Superimposed on Rated Current at Rated Voltage, 8.3 ms Pulse)	$I_{FM} (surge)$	500	Amps
Operating and Storage Temperature	$T_J, T_{stg}$	-55 to -150	°C

### THERMAL CHARACTERISTICS

Characteristics	Symbol	Max	Unit
Thermal Resistance, Junction to Case	$R_{\theta JC}$	15	°C/W

**ELECTRICAL CHARACTERISTICS**

Characteristics	Symbol	Value	Unit
Max Full Cycle Forward Voltage Drop, Averaged Over Full Cycle ( $I_O$ (Max), 60 Hz. Square Wave, $T_C = 55^\circ\text{C}$ )	$V_{F(AV)}$	0.45	Vdc
Max Instantaneous Forward Drop ( $I_F = 5$ Adc, $T_C = 25^\circ\text{C}$ , 300 $\mu\text{s}$ Pulse) ( $I_F = 15$ Adc, $T_C = 25^\circ\text{C}$ , 300 $\mu\text{s}$ Pulse)	$V_F$	0.6 0.9	Vdc
Max Full Cycle Reverse Leakage Current, Averaged Over Full Cycle (Rated $V_R$ , 60Hz, Square Wave, $T_C = 100^\circ\text{C}$ )	$I_{R(AV)}$	5.0	mAdc
Max Reverse Leakage Current (Rated $V_R$ , $T_C = 25^\circ\text{C}$ )	$I_R$	500	$\mu\text{Adc}$
Max Junction Capacitance ( $V_R = 10$ V, $T_C = 25^\circ\text{C}$ )	$C_J$	800	pf

**TYPICAL OPERATING CURVES**

