



S16S70 Thru S16S100

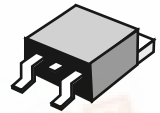
SWITCHMODE POWER RECTIFIERS D² PAK SURFACE MOUNT POWER PACKAGE

The D² PAK Power rectifier employs the Schottky Barrier principle with a Molybdenum barrier metal. These state-of-the-art devices have the following features:

- * Low Forward Voltage
- * Low Switching noise
- * High Surge Capacity
- * Guarantee Reverse Avalanche
- * Guard-Ring for Stress Protection
- * Lower Power Loss & High efficiency
- * 125 °C Operating Junction Temperature
- * Lower Stored Charge Majority Carrier Conduction
- * Similar Size to the industry Standard TO-220 Package
- * Plastic Material used Carries Underwriters Laboratory Flammability Classification 94V-O

SCHOTTKY BARRIER RECTIFIERS

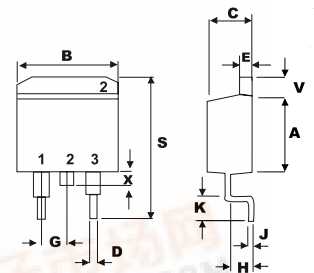
**16 AMPERES
70 -- 100 VOLTS**



TO-263 (D2-PAK)

MAXIMUM RATINGS

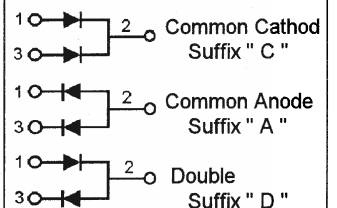
Characteristic	Symbol	S16S				Unit
		70	80	90	100	
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	70	80	90	100	V
RMS Reverse Voltage	$V_{R(RMS)}$	49	56	63	70	V
Average Rectifier Forward Current Total Device	$I_{F(AV)}$	8.0 16				A
Peak Repetitive Forward Current (Rate V_R , Square Wave, 20kHz)	I_{FRM}	16				A
Non-Repetitive Peak Surge Current (Surge applied at rate load conditions halfwave, single phase, 60Hz)	I_{FSM}	150				A
Operating and Storage Junction Temperature Range	T_J, T_{stg}	- 65 to + 125				°C



DIM	MILLIMETERS	
	MIN	MAX
A	8.12	9.00
B	9.70	10.30
C	4.23	4.90
D	0.51	1.15
E	1.10	1.50
G	2.54 BSC	
H	2.03	2.79
J	0.30	0.50
K	2.29	2.90
S	14.60	16.00
V	1.40	1.83
X	-----	1.70

ELECTRICAL CHARACTERISTICS

Characteristic	Symbol	S16S				Unit
		70	80	90	100	
Maximum Instantaneous Forward Voltage (I _F =8.0 Amp, T _C = 25 °C) (I _F =8.0 Amp, T _C = 100 °C)	V _F	0.75 0.68		0.85 0.76		V
Maximum Instantaneous Reverse Current (Rated DC Voltage, T _C = 25 °C) (Rated DC Voltage, T _C = 100 °C)	I _R	5.0 50				mA



S16S70 , S16S80

FIG-1 FORWARD CURRENT DERATING CURVE

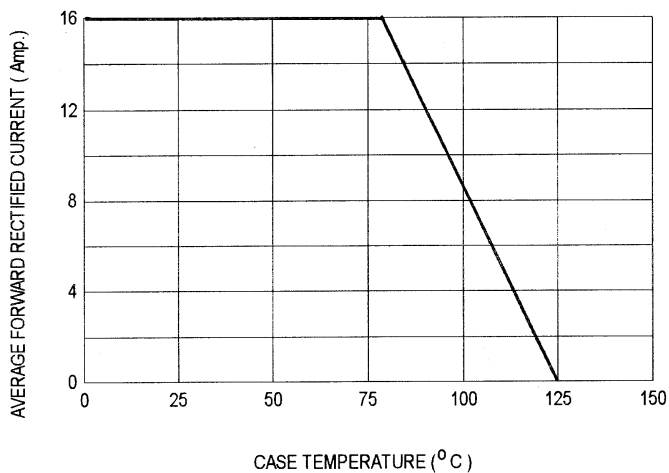


FIG-2 TYPICAL FORWARD CHARACTERISTICS

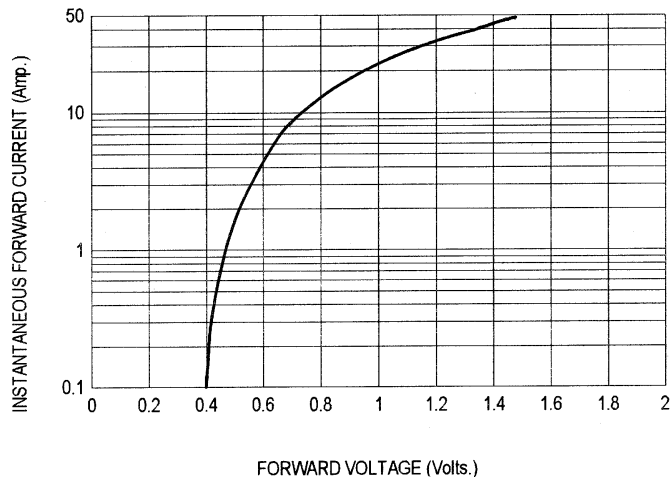


FIG-3 TYPICAL REVERSE CHARACTERISTICS

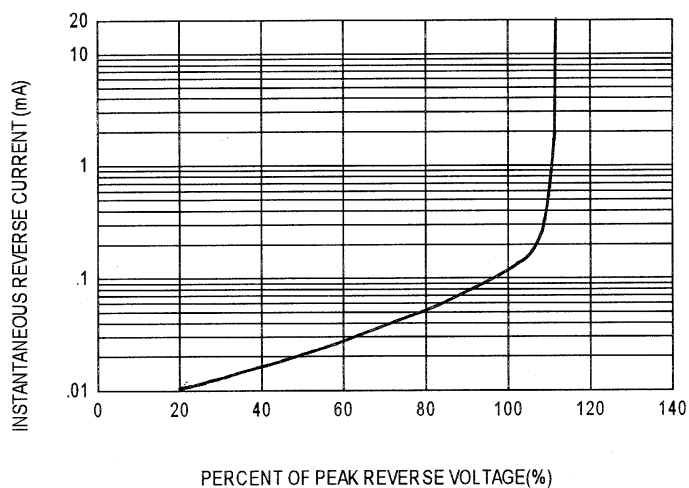


FIG-4 TYPICAL JUNCTION CAPACITANCE

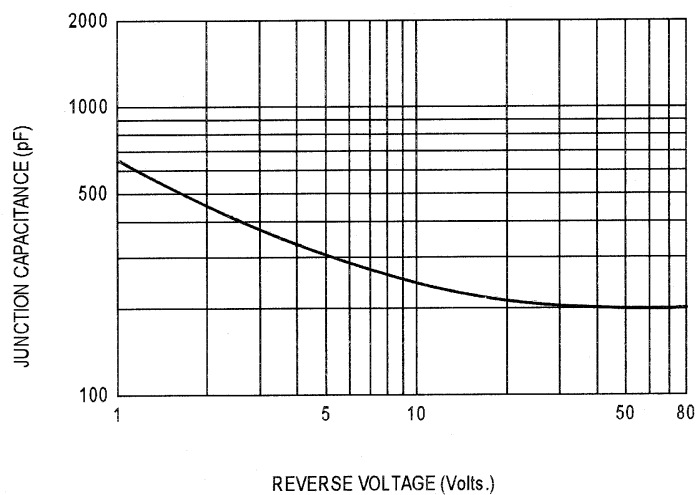
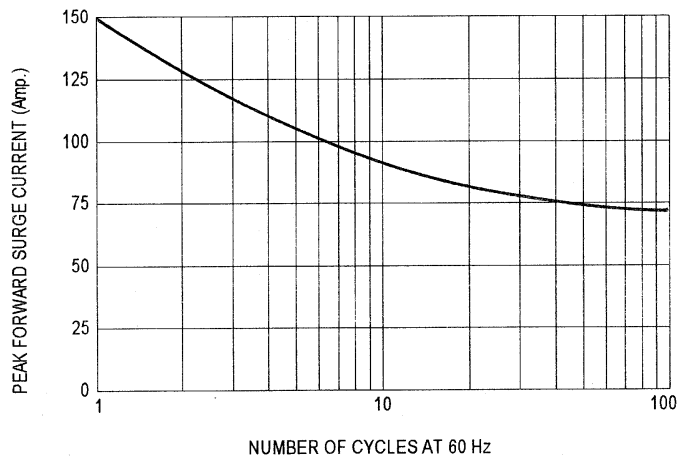


FIG-5 PEAK FORWARD SURGE CURRENT



S16S90 , S16S100

FIG-1 FORWARD CURRENT DERATING CURVE

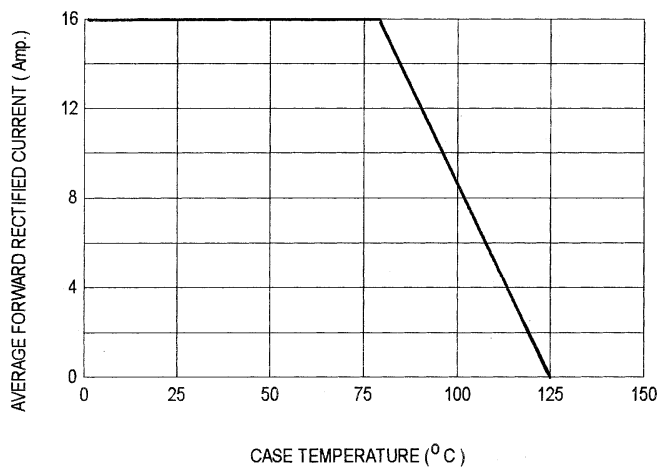


FIG-2 TYPICAL FORWARD CHARACTERISTICS

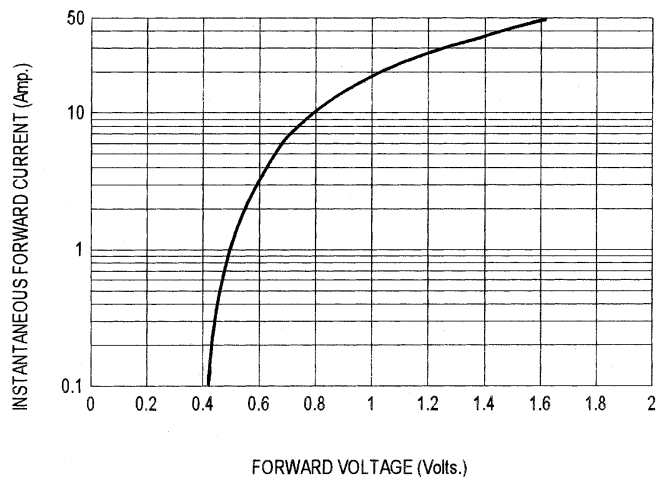


FIG-3 TYPICAL REVERSE CHARACTERISTICS

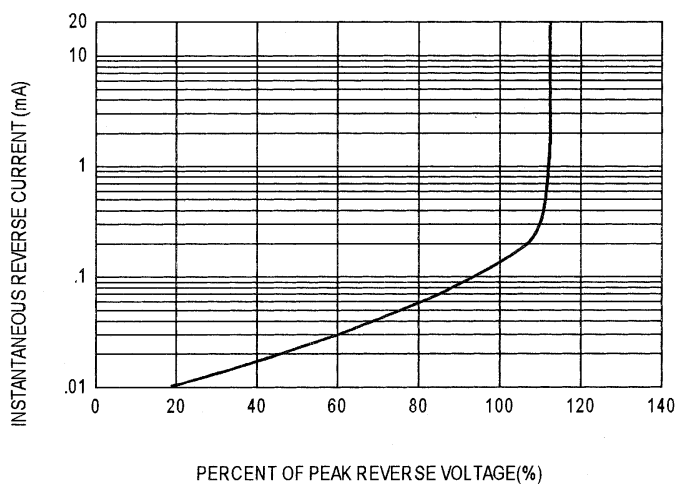


FIG-4 TYPICAL JUNCTION CAPACITANCE

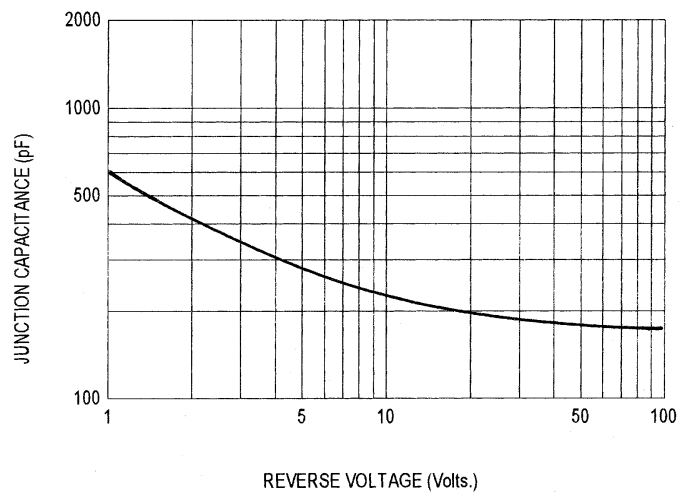


FIG-5 PEAK FORWARD SURGE CURRENT

