MOSPEC

S20S70 Thru S20S100

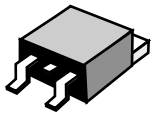
SWITCHMODE POWER RECTIFIERS
D2 PAK SURFACE MOUNT POWER PACKAGE

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 Surage Capacity
* Guarantee Reverse Avalance
* 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 Pakage
* Plastic Material used Carries Underwriters Laboratory Flammability Classification 94V-O

SCHOTTKY BARRIER RECTIFIERS

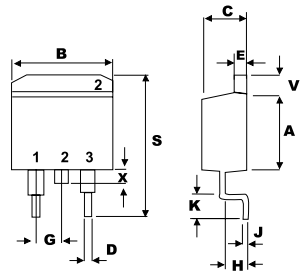
20 AMPERES
70 -- 100 VOLTS



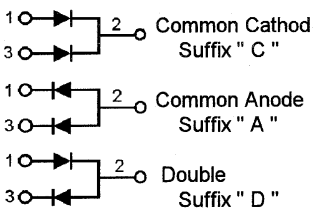
TO-263 (D2-PAK)

MAXIMUM RATINGS

Characteristic	Symbol	S20S				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	$I_{F(AV)}$	10 20				A
Peak Repetitive Forward Current (Rate V_R, Square Wave, 20kHz)	I_{FRM}	20				A
Non-Repetitive Peak Surge Current (Surge applied at rate load conditions halfware, single phase, 60Hz)	I_{FSM}	200				A
Operating and Storage Junction Temperature Range	T_j , T_{stg}	- 65 to + 125				°C



DIM	MILLMETERS	
	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	S20S				Unit
		70	80	90	100	
Maximum Instantaneous Forward Voltage (I_F=10 Amp, T_C = 25 °C) (I_F=10 Amp, T_C = 100 °C)	V_F	0.75 0.66		0.85 0.74		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

S20S70 , S20S80

FIG-1 FORWARD CURRENT DERATING CURVE

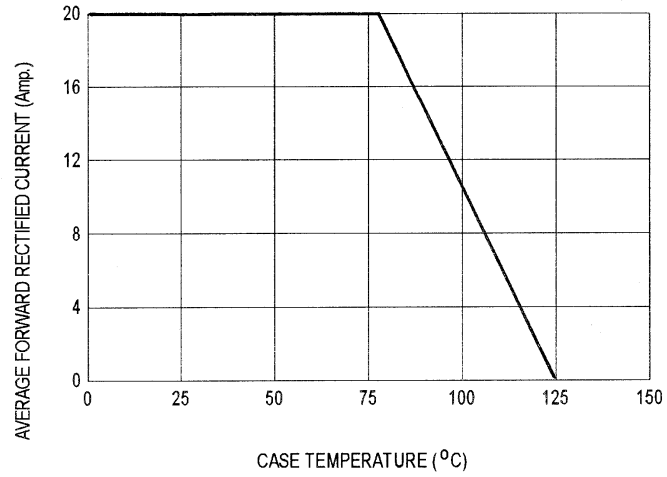


FIG-2 TYPICAL FORWARD CHARACTERISTICS

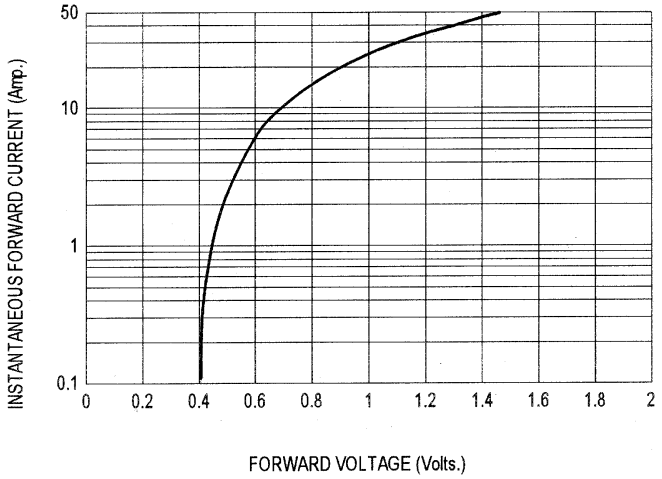


FIG-3 TYPICAL REVERSE CHARACTERISTICS

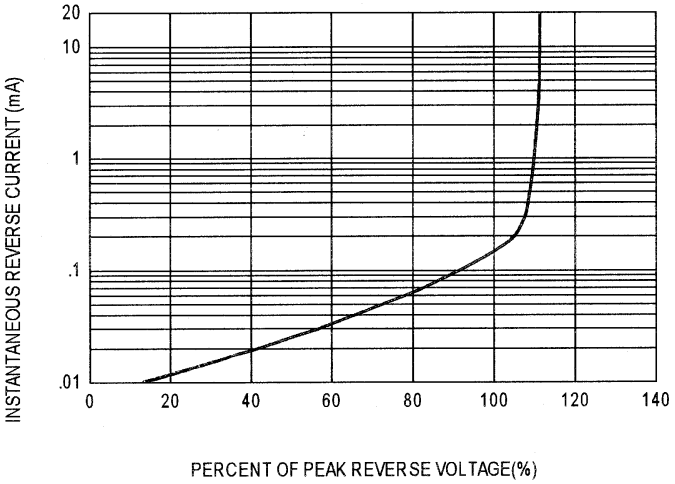


FIG-4 TYPICAL JUNCTION CAPACITANCE

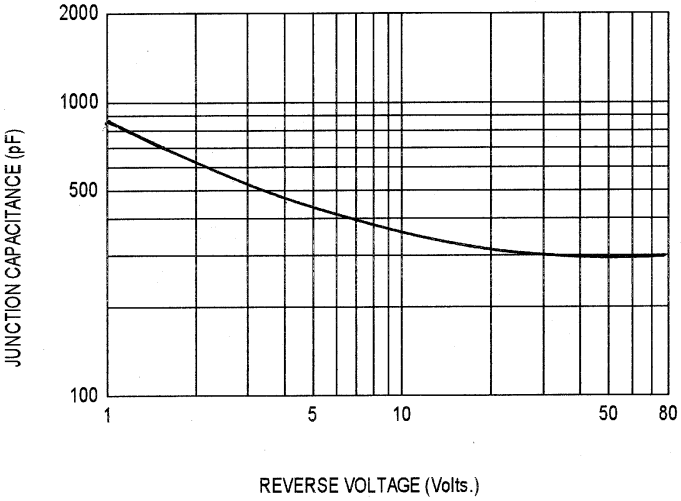


FIG-5 PEAK FORWARD SURGE CURRENT

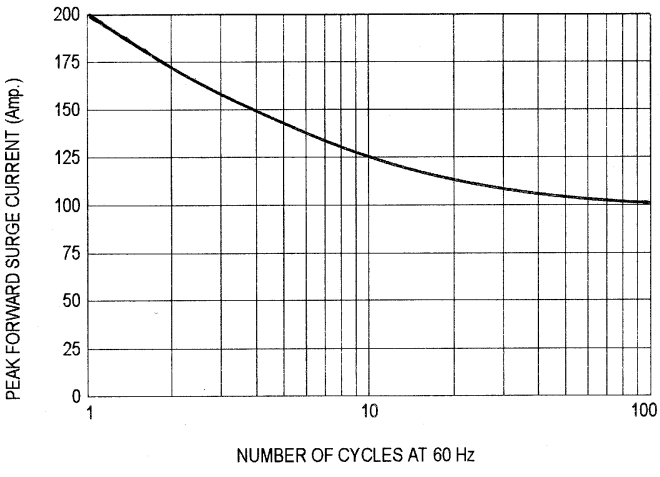


FIG-1 FORWARD CURRENT DERATING CURVE

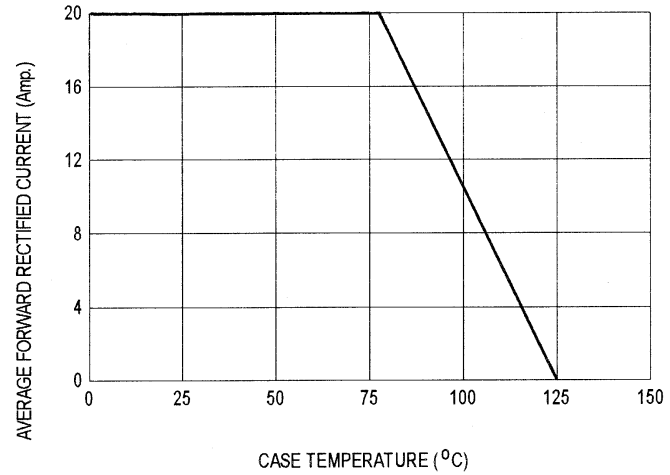


FIG-2 TYPICAL FORWARD CHARACTERISTICS

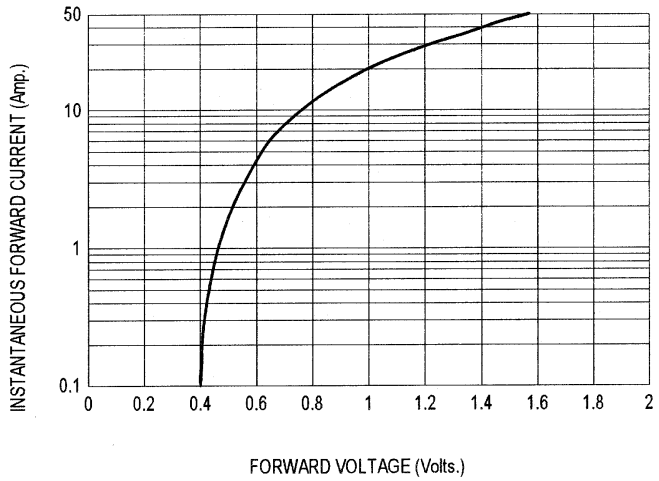


FIG-3 TYPICAL REVERSE CHARACTERISTICS

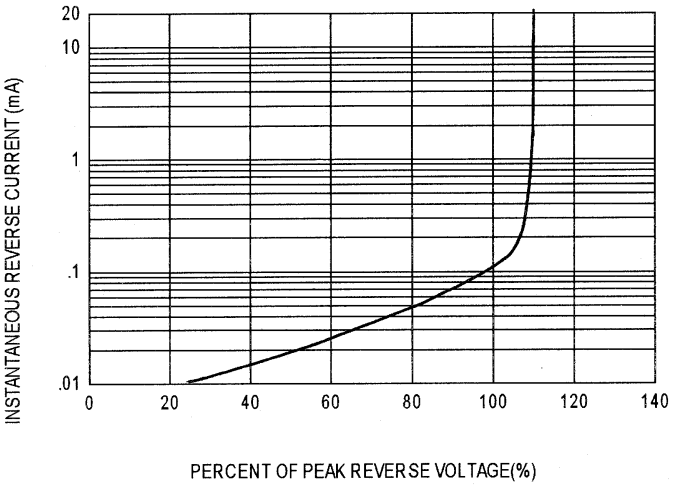


FIG-4 TYPICAL JUNCTION CAPACITANCE

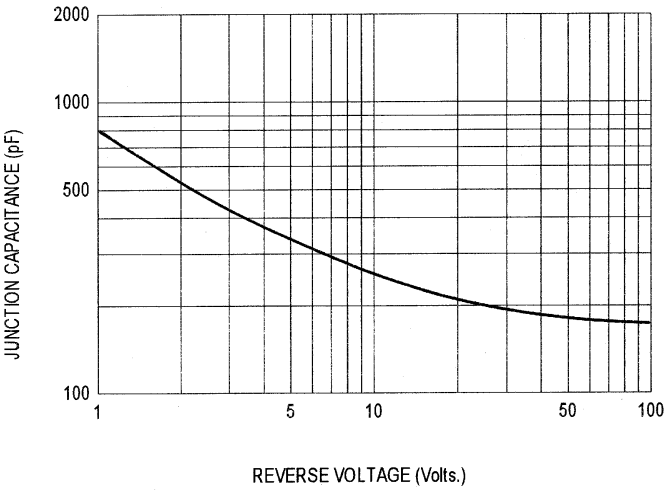


FIG-5 PEAK FORWARD SURGE CURRENT

