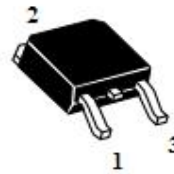


PSM20U150GS&PSM20U150DS

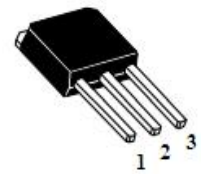
20.0AMPS. SCHOTTKY BARRIER RECTIFIERS

FEATURE

- . High current capability
- . Ultra low forward voltage drop
- . Low power loss, high efficiency
- . High surge capability
- . High temperature soldering guaranteed
260°C /10seconds, 0.25"(6.35mm)from case.



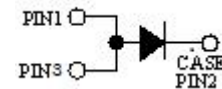
TO-252
PSM20U150GS



TO-251
PSM20U150DS

MECHANICAL DATA

- . Case: Molded with UL-94 Class V-0 recognized
Flame Retardant Epoxy
- . Mounting position: any



Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%

MAXIMUM RATINGS (T_C=25°C unless otherwise noted)

Parameter	Symbol	PSM20U150GS&PSM20U150DS	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	150	V
Maximum RMS Voltage	V_{RMS}	105	V
Maximum DC blocking Voltage	V_{DC}	150	V
Maximum Average Forward Rectified Current at T _C =100°C <i>Total device</i>	$I_{F(AV)}$	20.0	A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	200.0	A
Typical Junction Capacitance (Note 1)	C_J	590	pF
Operation Junction Temperature and Storage Temperature	T_J, T_{STG}	-55 to +150	°C

ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise noted)

Parameter	Symbol	Test conditions	Typ	Max	Units	
Forward voltage drop	V_F	T _J =25°C	I _F =3A	0.56	---	V
			I _F =5A	0.63	---	
			I _F =20A	0.80	0.86	
		T _J =125°C	I _F =3A	0.46	---	
			I _F =5A	0.51	---	
			I _F =20A	0.67	0.79	
Reverse leakage current	I_R	T _J =25°C	V _R =150V	---	100	μA
		T _J =125°C	V _R =150V	---	20	mA

THERMAL CHARACTERISTICS (T_C=25°C unless otherwise noted)

Parameter	Symbol	PSM20U150GS	PSM20U150DS	Units
Typical Thermal Resistance (Note 2)	$R_{(JC)}$	6.5	6.5	°C/W

Notes:

1. Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
2. Thermal Resistance from Junction to Case

RATING AND CHARACTERISTIC CURVES

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

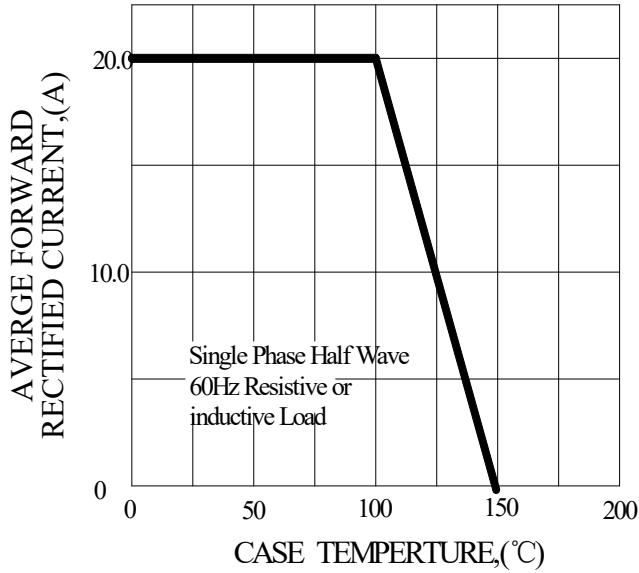


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

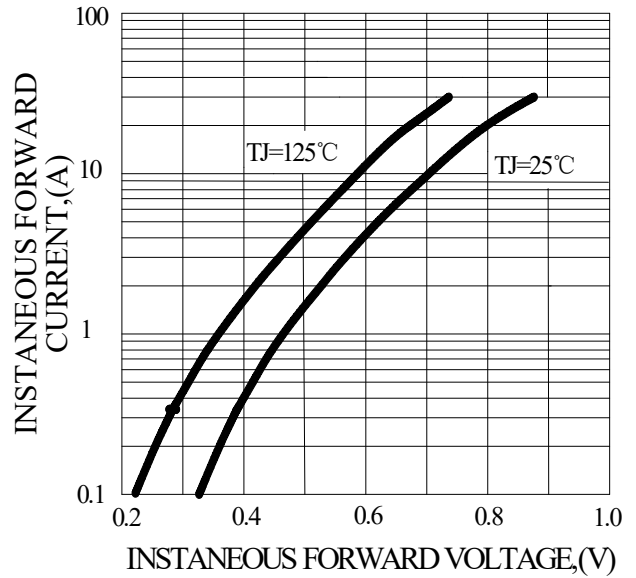


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

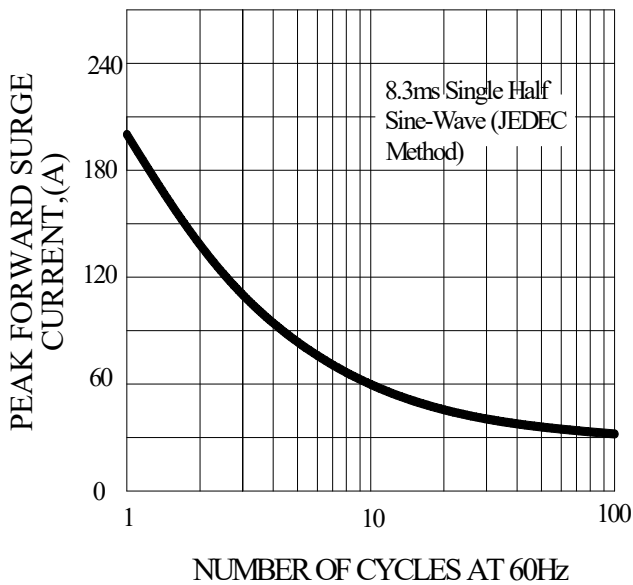
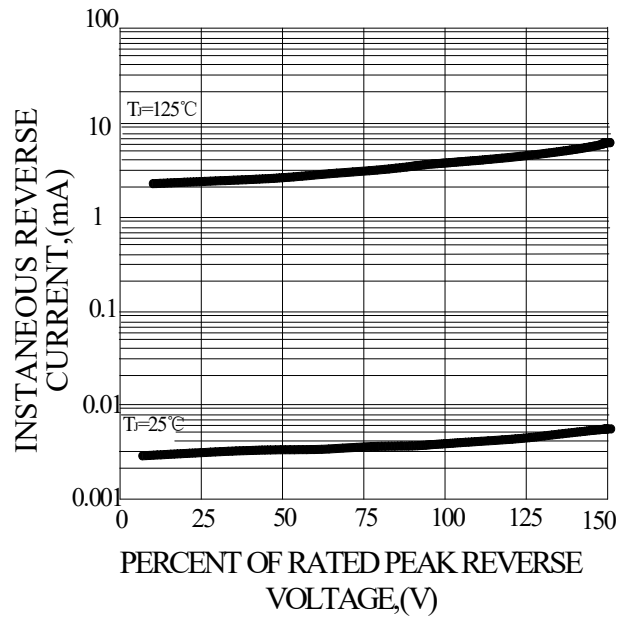
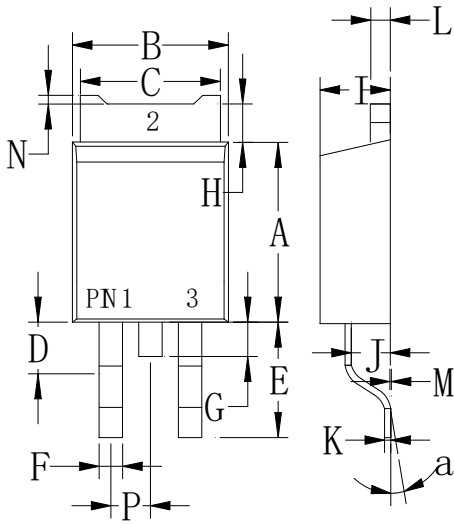


FIG.4-TYPICAL REVERSE CHARACTERISTICS



PACKAGE OUTLINE DIMENSIONS

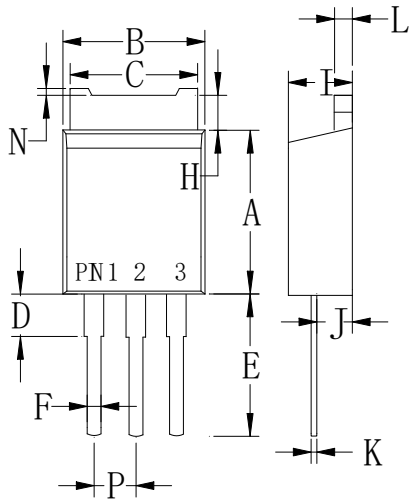
TO-252



TO-252		
Dim	Min	Max
A	.230 (5.85)	.246 (6.25)
B	.250 (6.35)	.264 (6.75)
C	.207 (5.27)	.218 (5.54)
D	.037 (0.93)	.045 (1.14)
E	.106 (2.70)	.138 (3.50)
F	.028 (0.72)	.033 (0.84)
G	.024 (0.60)	.041 (1.05)
H	.028 (0.72)	.043 (1.10)
I	.085 (2.15)	.096 (2.45)
J	.037 (0.95)	.047 (1.20)
K	.018 (0.45)	.026 (0.65)
L	.018 (0.45)	.024 (0.60)
P	.081 (2.05)	.094 (2.40)
M	.000 (0.00)	.006 (0.15)
N	--	.008 (0.20)
a	0°	10°

Dimensions in inches and (millimeters)

TO-251



TO-251		
Dim	Min	Max
A	.230 (5.85)	.246 (6.25)
B	.250 (6.35)	.266 (6.75)
C	.207 (5.27)	.218 (5.54)
D	.037 (0.93)	.045 (1.14)
E	.173 (4.40)	.205 (5.20)
F	.028 (0.72)	.033 (0.84)
H	.028 (0.70)	.043 (1.10)
I	.085 (2.15)	.096 (2.45)
J	.037 (0.95)	.047 (1.20)
K	.018 (0.45)	.026 (0.65)
L	.018 (0.45)	.024 (0.60)
N	--	.008 (0.20)
P	.081 (2.05)	.094 (2.40)

Dimensions in inches and (millimeters)