

PSM20U100CT&PSM20U100FCT

20.0AMPS. SCHOTTKY BARRIER RECTIFIERS

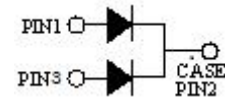
FEATURE

- . 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.



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	PSM20U100CT&PSM20U100FCT	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	100	V
Maximum RMS Voltage	V_{RMS}	70	V
Maximum DC blocking Voltage	V_{DC}	100	V
Maximum Average Forward Rectified Current <i>Per Leg</i> at T _C =100°C <i>Total device</i>	$I_{F(AV)}$	10.0 20.0	A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method) <i>Per Leg</i>	I_{FSM}	175.0	A
Typical Junction Capacitance (Note 1)	C_J	500	pF
Operation Junction Temperature and Storage Temperature	T_J, T_{STG}	-55 to +150	°C
Maximum Mounting torque, M3 or 6-32 srew		1.1N•m (10 lbf•in)	

ELECTRICAL CHARACTERISTICS -(per leg) (T_C=25°C unless otherwise noted)

Parameter	Symbol	Test conditions	Typ	Max	Units	
Forward voltage drop	V_F	T _J =25°C	I _F =3A	0.45	---	V
			I _F =5A	0.50	---	
			I _F =10A	0.60	0.70	
		T _J =125°C	I _F =3A	0.38	---	
			I _F =5A	0.45	---	
			I _F =10A	0.58	0.68	
Reverse leakage current	I_R	T _J =25°C	V _R =100V	---	100	μA
		T _J =125°C	V _R =100V	---	20	mA

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

Parameter	Symbol	PSM20U100CT	PSM20U100FCT	Units
Typical Thermal Resistance (Note 2)	$R_{(JC)}$	2.0	3.0	°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

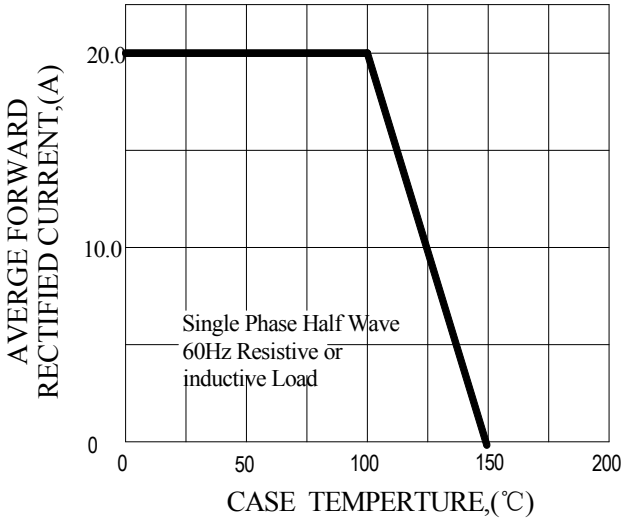


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

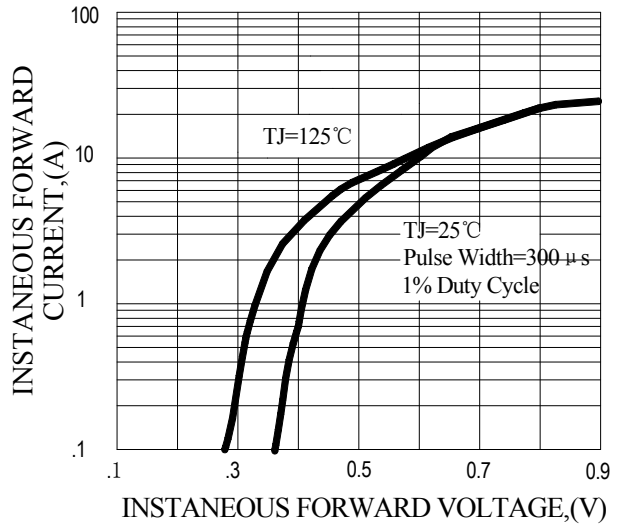


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

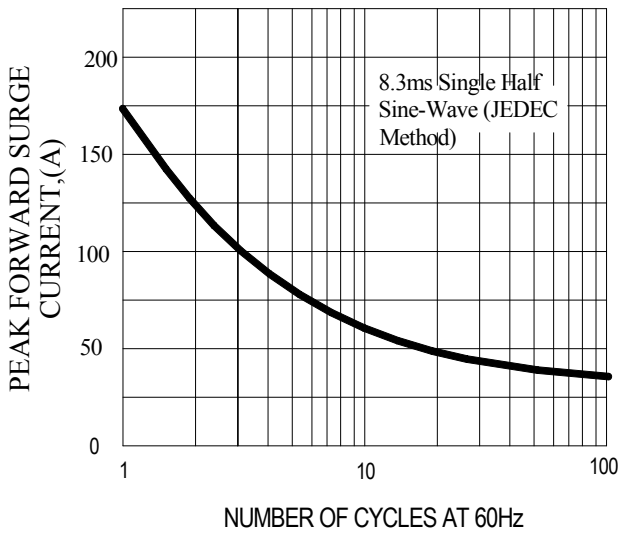
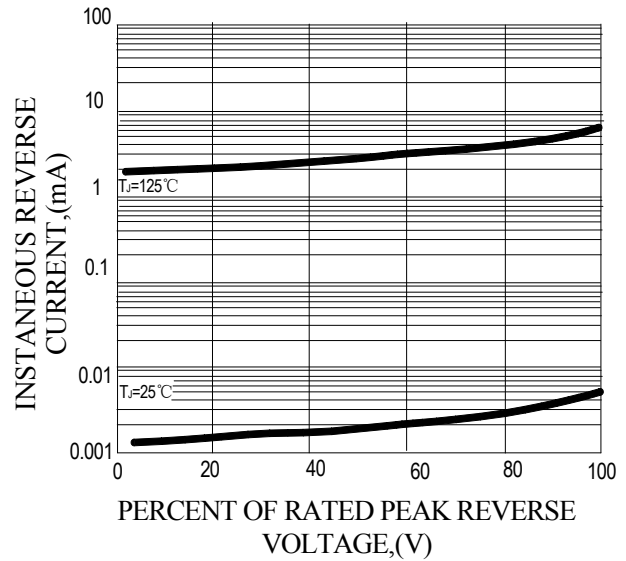
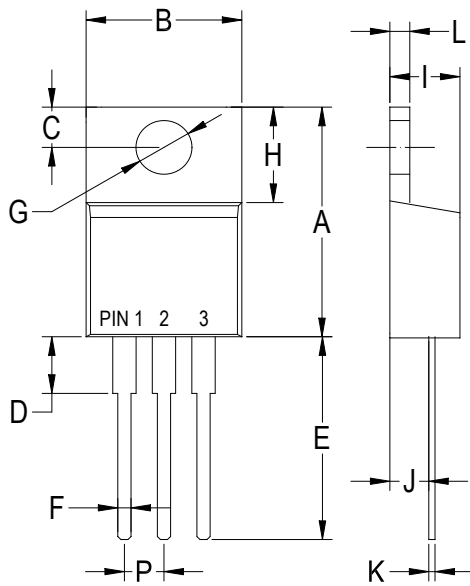


FIG.4-TYPICAL REVERSE CHARACTERISTICS



PACKAGE OUTLINE DIMENSIONS

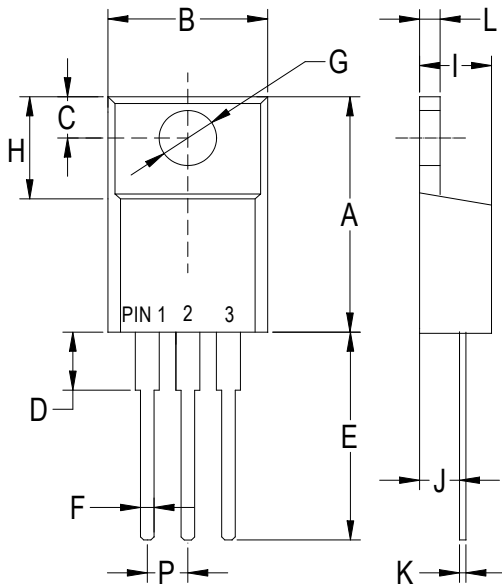
TO-220AB



TO-220AB		
Dim	Min	Max
A	.548(13.93)	.624(15.87)
B	.387(9.85)	.419(10.66)
C	.103(2.62)	.113(2.87)
D	—	.177(4.50)
E	.500(12.7)	—
F	.019(0.5)	.038(0.96)
G	.147(3.75)	.156(3.95)
H	.226(5.75)	.269(6.85)
I	.163(4.16)	.196(5.00)
J	.080(2.03)	.115(2.92)
K	—	.025(0.65)
L	.045(1.15)	.054(1.39)
P	.095(2.44)	.105(2.67)

Dimensions in inches and (millimeters)

ITO-220AB



ITO-220AB		
Dim	Min	Max
A	.571(14.5)	.610(15.5)
B	.383(9.72)	.406(10.3)
C	.110(2.80)	.126(3.20)
D	.133(3.38)	.162(4.10)
E	.512(13.0)	.551(14.0)
F	.028(0.70)	.035(0.90)
G	.114(2.90)	.138(3.50)
H	.268(6.80)	.291(7.40)
I	.162(4.10)	.185(4.70)
J	.102(2.60)	.110(2.80)
K	.018(0.45)	.026(0.65)
L	.097(2.46)	.113(2.86)
P	.890(2.25)	.113(2.85)

Dimensions in inches and (millimeters)