PT3L100B

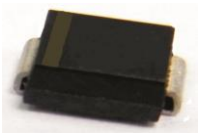
PFC Device Corporation

3A 100V HPTR® Single Schottky Rectifier

Major ratings and characteristics

Characteristics	Values	Units
$I_{F(AV)}$ Rectangular Waveform	3	A
V_{RRM}	100	V
V_F@ 3A , Tj=125 °C	0.65	V, typ.
T_J Operating Junction Temperature	-40 to +150	°C

PT3L100B



DO-214AA (SMB)

Features

- Super Low Forward Voltage (SLVF®) Drop
- Reliable High Temperature Operation
- Softest, fast switching capability
- 150°C Operating Junction Temperature
- Lead Free Finish, RoHS Compliant

Typical Applications

Device optimized for low forward voltage drop to maximize efficiency in Power Supply applications

1. Characteristics

Maximum Ratings Characteristics (T_A = 25 °C unless otherwise specified)

Parameter	Symbol	Values	Units
DC Blocking Voltage	V_{RM}	100	Volts
Working Peak Reverse Voltage	V_{RWM}		
Peak Repetitive Reverse Voltage	V_{RRM}		
Average Rectified Forward Current Per device (Rated VR-20Khz Square Wave) - 50% duty cycle	I_o	3	Amps
Peak Forward Surge Current - 1/2 60hz	I_{FSM}	50	Amps
Peak Repetitive Reverse Surge Current (2uS-1Khz)	I_{RRM}	1	Amps
Typical Thermal Resistance	$R\theta_{JL}$	20	°C / W
Maximum Rate of Voltage Change (at Rated VR)	dv/dt	10000	V/uS
Operating Junction Temperature	T_J	- 40 to +150	°C
Storage Junction Temperature	T_{STG}	- 40 to +150	

Electrical Characteristics - (per leg) (T_A = 25 °C unless otherwise specified)

Parameter	Test Conditions		Symbol	Typ.	Max.	Units
Instantaneous Forward Voltage	IF = 3 A	T_J = 25 °C	VF*	----	0.79	Volts
		T_J = 125 °C		0.65	0.69	
Instantaneous Reverse Current	At V_{RM}	T_J = 25 °C	IR*	----	200	uA
		T_J = 125 °C		5	30	mA

* Pulse width < 300 uS, Duty cycle < 2%

2. Characteristics Curves

Ratings and Characteristics Curves (TA = 25℃ unless otherwise specified)

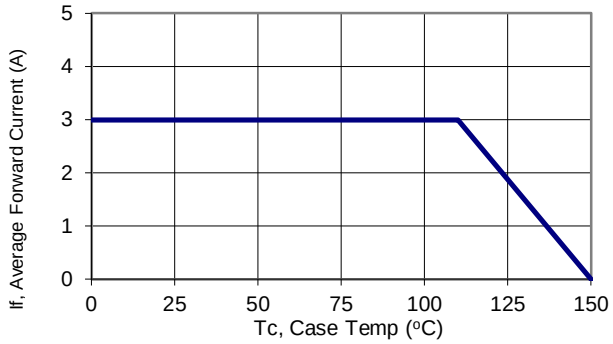


Figure 1: Current Derating, Case

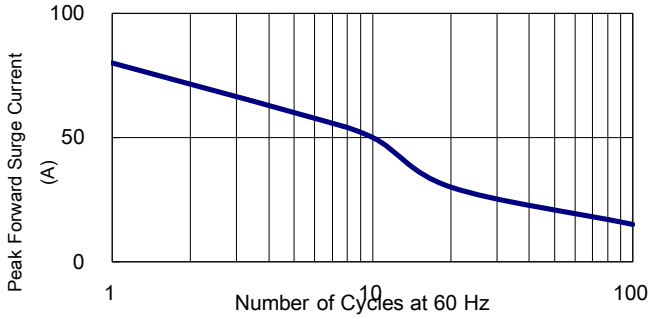


Figure 2: Maximum Repetitive Surge Current

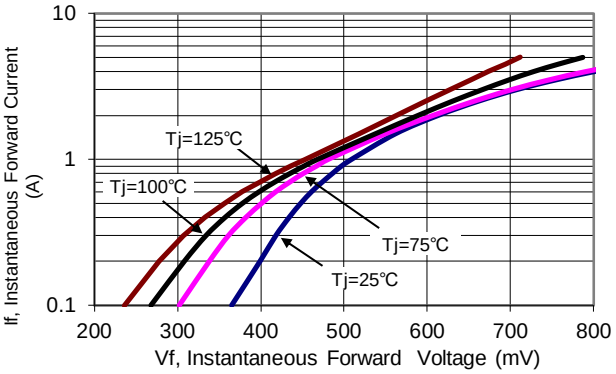


Figure 3: Typical Forward Voltage

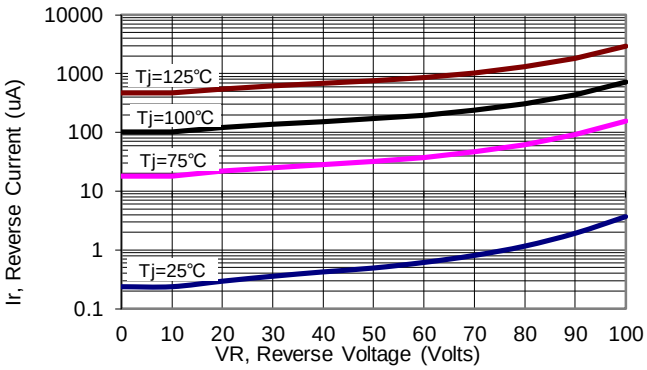


Figure 4: Typical Reverse Current

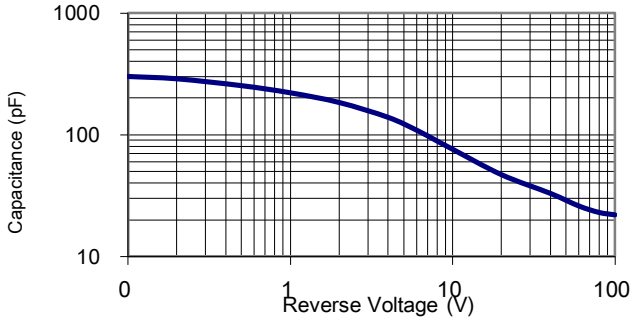
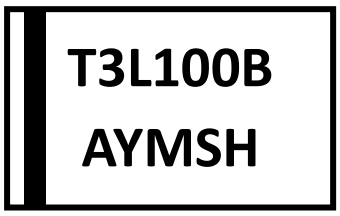


Figure 5: Typical Junction Capacitance

3. Marking information

Top Marking Rule

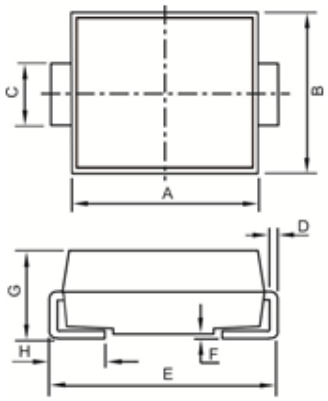


T3L100B= Product Type Marking Code
A = Assembly code
Y = Last one digits of year
M = Month code
S = Series Number
H = Halogen Free (N/A = common molding compound)

4. Package information

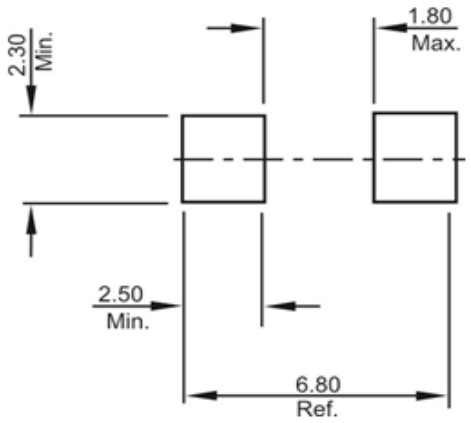
Suggested Package Outline Dimensions millimeters

SMB



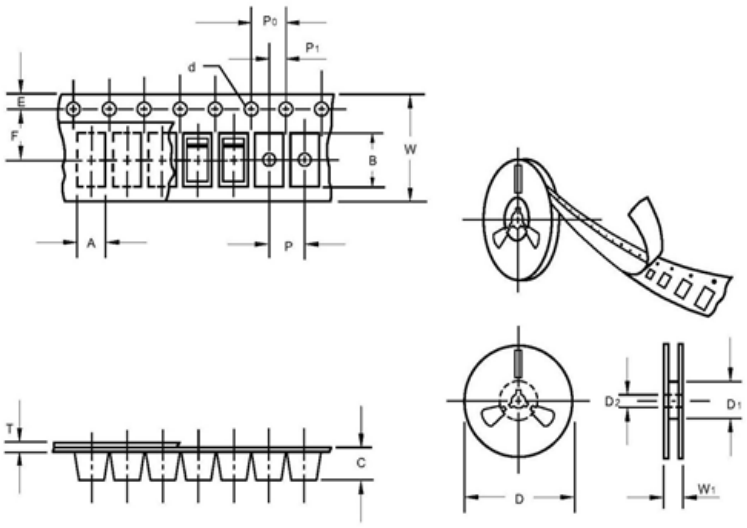
Dim.	Min.	Max.
A	4.06	4.75
B	3.30	3.94
C	1.96	2.21
D	0.15	0.31
E	5.00	5.59
F	-----	0.20
G	2.00	2.50
H	0.76	1.52
All Dimensions in millimeter		

Mounting pad Outline Dimensions millimeters



5. Packing and Ordering information

Packing information millimeters



Item	Symbol	Dimension
Carrier width	A	3.77±0.10
Carrier length	B	5.7±0.10
Carrier depth	C	2.45±0.10
Sprocket hole	d	1.55±0.10
Reel outside diameter	D	330.0±1.0
Reel inner diameter	D1	75±1.0
Feed hole diameter	D2	13.5±1.0
Stocket hole position	E	1.75±0.10
Punch hole position	F	5.5±0.05
Punch hole pitch	P	8.0±0.10
Sprocket hole pitch	P0	4.0±0.10
Embossment center	P1	2.0±0.10
Totall tape thickness	T	0.25±0.10
Tape width	W	12.0±0.15
Reel width	W1	18.1±1.5

Ordering information

Part Number	Package	Base Quantity	Delivery mode
PT3L100B	DO-214AA (SMB)	3000	13" diameter plastic tape and reel

Note: For Halogen Free molding compound, add "H" suffix to part number above.

Mechanical

- Molder Plastic: UL Flammability Classification Rating 94V-0
- Device Weight : 0.003 ounces (0.093grams) - DO-214AA(SMB)