

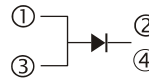
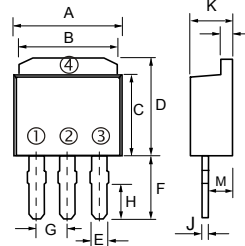
Features

- Schottky Barrier Chip
- Ideally Suited for Automatic Assembly
- Low Power Loss, High Efficiency
- For Use in Low Voltage Application
- Guard Ring Die Construction
- Plastic Case Material has UL Flammability Classification Rating 94V-O

Mechanical Data

- Case: TO-251/IPAK, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: See Diagram
- Mounting Position: Any
- **Lead Free: For RoHS / Lead Free Version**

TO-251AA/IPAK



TO-251AA/IPAK		
DIM.	MIN.	MAX.
A	6.30	6.80
B	5.10	5.50
C	5.90	6.30
D	6.85	7.25
E	0.51	0.90
F	3.95	4.35
G	2.19	2.39
H	2.96	3.16
I	0.40	0.61
J	0.40	0.61
K	2.20	2.40
M	0.71	1.31

All Dimensions in millimeter

Maximum Ratings and Electrical Characteristics @ $T_A=25^\circ\text{C}$ unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

Characteristic	Symbol	BD540YS	BD545YS	BD550YS	BD560YS	BD580YS	BD5100YS	BD5150YS	BD5200YS	Unit	
Peak Repetitive Reverse Voltage	V_{RRM}									V	
Working Peak Reverse Voltage	V_{RWM}	40	45	50	60	80	100	150	200		
DC Blocking Voltage	V_R										
RMS Reverse Voltage	$V_{R(RMS)}$	28	31	35	42	56	70	105	140	V	
Average Rectified Output Current @ $T_L = 100^\circ\text{C}$ (Note 1)	I_O	5.0								A	
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	100								A	
Forward Voltage @ $I_F = 5\text{A}$	V_{FM}	0.70		0.74		0.80		0.90		V	
Peak Reverse Current @ $T_A = 25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_A = 100^\circ\text{C}$	I_{RM}	0.1					20				mA
Typical Junction Capacitance (Note 2)	C_j	350		280		200				pF	
Typical Thermal Resistance (Note 1)	$R_{\theta JA}$	15								$^\circ\text{C/W}$	
Operating and Storage Temperature Range	T_j, T_{STG}	-55 to +125			-55 to +150						$^\circ\text{C}$

Note: 1. Valid provided that leads are kept at ambient temperature at a distance of 9.5mm from the case.
2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

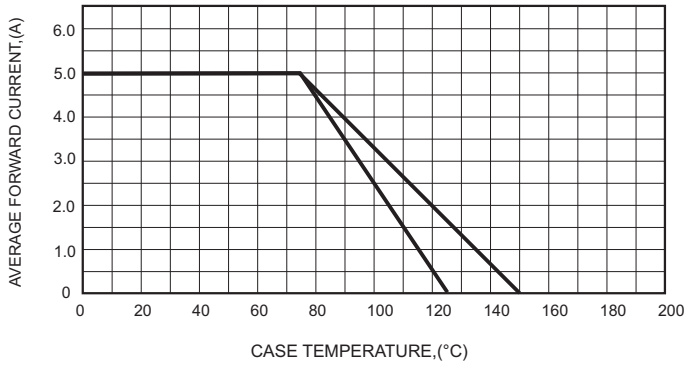


FIG.2-TYPICAL FORWARD CHARACTERISTICS

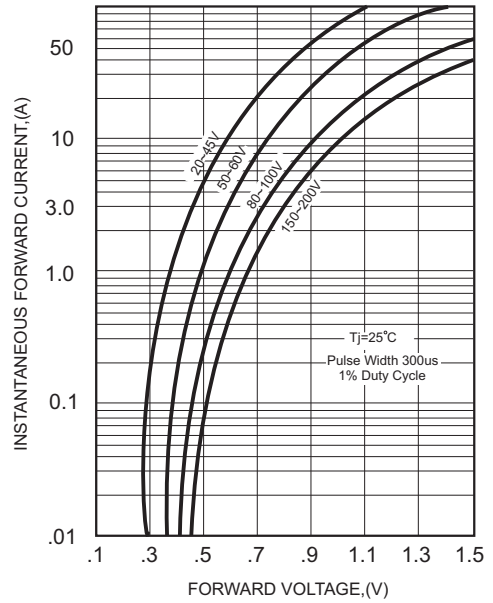


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

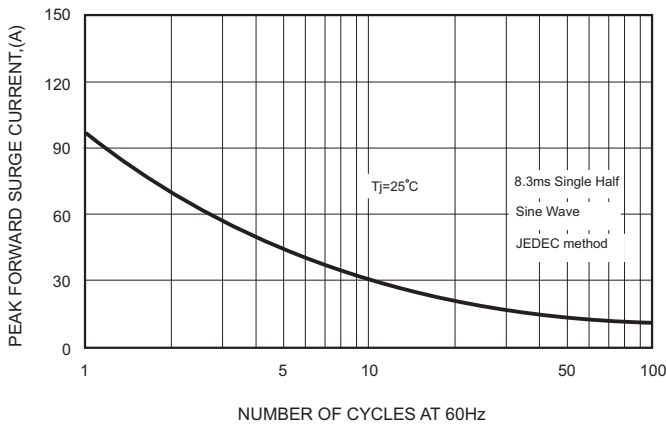


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

