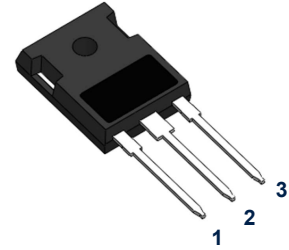


Features

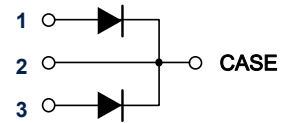
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction, majority carrier conduction
- Guard ring for over voltage protection
- Low power loss, high efficiency
- High current capability, low forward voltage drop
- High surge capability
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications
- Dual rectifier construction
- High temperature soldering guaranteed: 260°C/10 seconds, 0.25"(6.35mm)from case
- Component in accordance to RoHS 2011/65/EU



TO-247AB

Mechanical Data

- Case: TO-247AB molded plastic body
- Terminals: Lead solderable per MIL-STD-750,method 2026
Polarity: As marked.
- Mounting Position: Any



Schematic Diagram

Maximum Ratings and Electrical Characteristics

(Ratings at 25°C ambient temperature unless otherwise specified, Single phase, half wave ,resistive or inductive load. For capacitive load, derate by 20%)

Parameter	Symbols	Value	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	300	V
Maximum RMS Voltage	V_{RMS}	210	V
Maximum DC Blocking Voltage	V_{DC}	300	V
Maximum Average Forward Rectified Current (see Fig.1)	Per leg	20	A
	Total device	40	
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	300	A
Forward Voltage at 20.0A Per Leg ¹	V_F	0.95	V
Maximum Instantaneous Reverse Current at Rated DC Blocking Voltage ¹	$T_A=25^{\circ}C$	0.1	mA
	$T_A=125^{\circ}C$	20	
Typical Thermal Resistance ²	$R_{th(j-c)}$	3.0	°C/W
Operating Junction Temperature Range	T_J	-55 to+150	°C
Storage Temperature Range	T_{STG}	-55 to+150	°C

Notes:

1. Pulse test: 300us pulse width, 1% duty cycle
2. Thermal resistance from junction to case

Ratings and Characteristic Curves

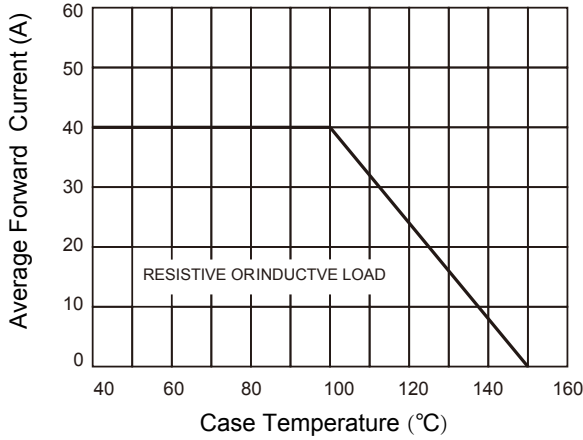


Figure 1. Forward Current Derating Curve

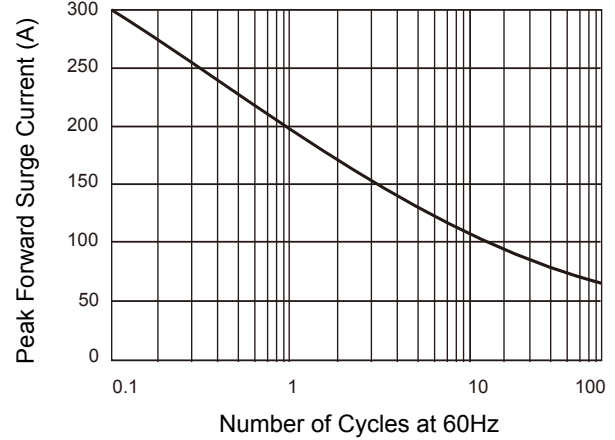


Figure 2. Max. Non-Repetitive Peak Forward Surge Current

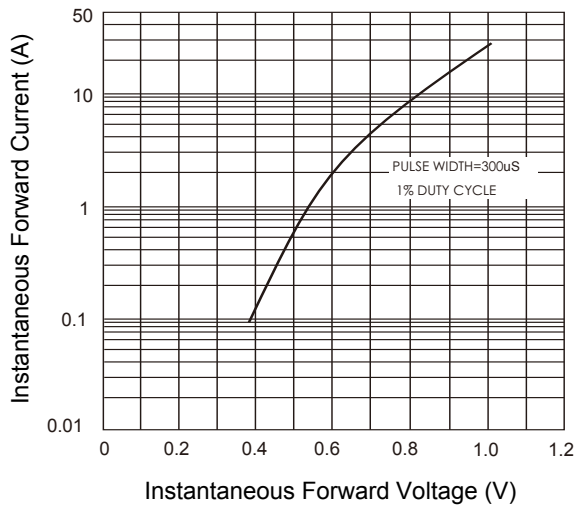


Figure 3. Typical Instantaneous Forward Characteristics

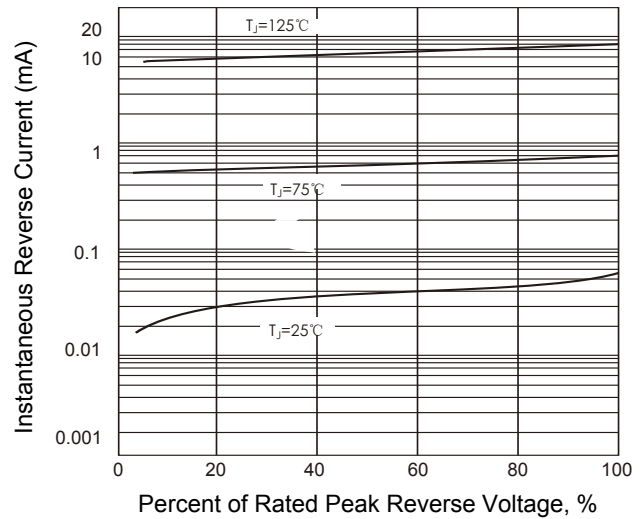


Figure 4. Typical Reverse Characteristics

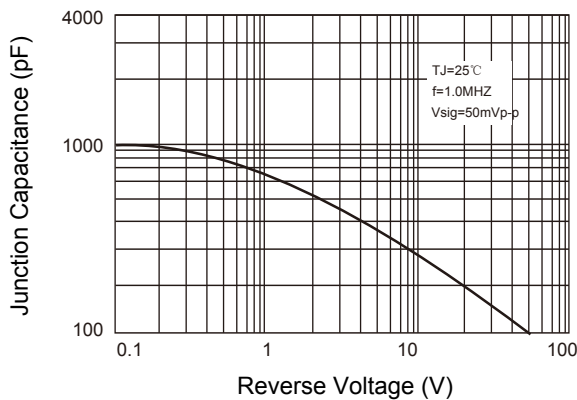
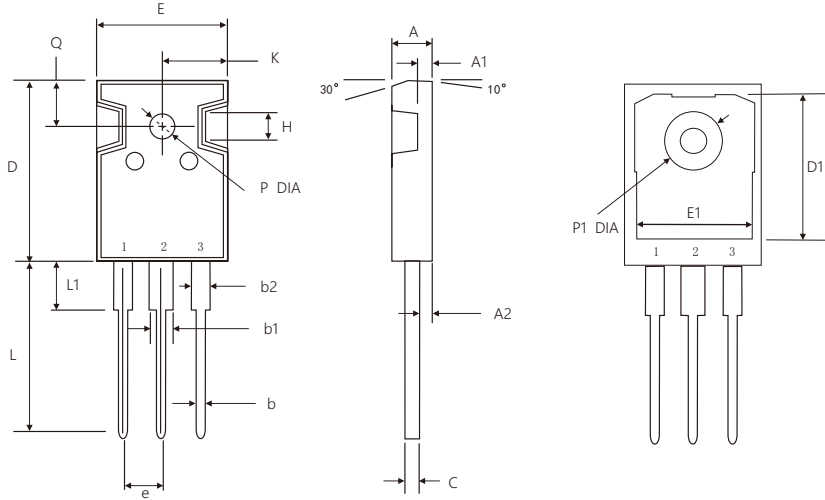


Figure 5. Typical Junction Capacitance

Package Outline Dimensions (TO-247AB)



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	4.70	5.30	0.185	0.209
A1	1.80	2.20	0.071	0.087
A2	2.24	2.58	0.088	0.102
b	1.00	1.40	0.039	0.055
b1	2.60	3.60	0.102	0.142
b2	1.60	2.60	0.063	0.102
C	0.40	0.80	0.016	0.031
D	20.00	22.00	0.787	0.866
D1	16.25	16.85	0.640	0.663
E	15.4	16.4	0.606	0.646
E1	13.10	13.50	0.516	0.531
L	19.60	20.40	0.772	0.803
e	5.20	5.70	0.205	0.224
L1	3.80	4.50	0.150	0.177
P	3.30	3.70	0.130	0.146
P1	-	7.30	-	0.287
Q	5.40	6.40	0.213	0.252
K	7.40	8.20	0.291	0.323
H	4.60 TYP		0.181 TYP	