

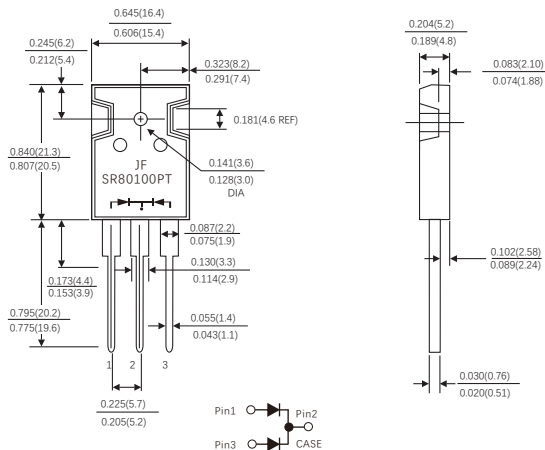
FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction ,majority carrier conduction
- Guard ring for overvoltage 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 2015/863/EU

MECHANICAL DATA

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

TO-247AB



Dimensions in inches and (millimeters)

TYPICAL APPLICATIONS

For use in low voltage ,high frequency inverters ,DC/DC converters,free wheeling ,and polarity protection applications

MAXIMUM RATINGS

(Ratings at 25°C ambient temperature unless otherwise specified)

Parameter	Symbol	Value	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	100	V
Maximum average forward rectified current (see fig.1)	Per leg	40	A
	Total device	80	
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method at rated TL,Total device)	I_{FSM}	550	A
Storage and operating temperature range	T_{stg}/T_j	-55 to +150	°C

PRIMARY CHARACTERISTICS	
$I_r(AV)$	2×40A
V_{RRM}	100V
I_{FSM}	550A
V_f at $I_r=40.0A$,Per leg, $T_j=125^{\circ}C$	0.65V,Typ
$T_j(MAX)$	150°C
Package	TO-247AB
Diode variations	Common cathode

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

Parameter	Test Conditions		Symbol	Typ.	Max.	Unit
Instaneous forward voltage	T _J =25°C	I _F =1.0A	V _F ²⁾	0.37	-	V
		I _F =5.0A		0.45	-	
		I _F =10.0A		0.50	-	
		I _F =20.0A		0.61	-	
		I _F =40.0A		0.77	0.84	
	T _J =125°C	I _F =1.0A		0.22	-	
		I _F =5.0A		0.34	-	
		I _F =10.0A		0.44	-	
		I _F =20.0A		0.55	-	
		I _F =40.0A		0.65	0.74	
Reverse current	V _R =100V	T _J =25°C	I _R ³⁾	-	50	μA
		T _J =125°C		-	30	mA
Typical junction capacitance	4V,1MHz		C _J	2140		pF

Notes: 1. $dP_{tot}/dT_J < 1/R_{thJA}$ thermal runaway condition for a diode on its own heatsink
 2. Pulse test: 300 μs pulse width, 1% duty cycle
 3. Pulse test: pulse width ≤ 40ms

THERMAL CHARACTERISTICS

Parameter	Symbol	TO-247AB	Unit
Typical thermal resistance ³⁾	R _{θjc}	0.5	°C/W

3. Thermal resistance from junction to case

AVAILABLE PACK INFORMATION

Product code	Pack	Box Size L×W×H(mm)	Quantity(pcs/box)	Carton Size L×W×H(mm)	Quantity(box/carton)
SR80100PT-TO-247AB	P/T	530×110×60	360	550×330×130	5

RATINGS AND CHARACTERISTIC OF SR80100PT

FIG.1-FORWARD CURRENT DERATING CURVE

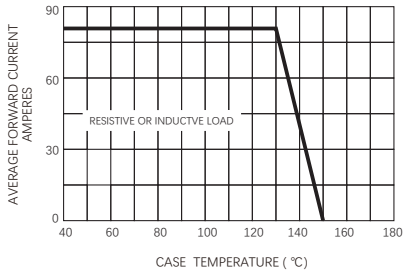


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

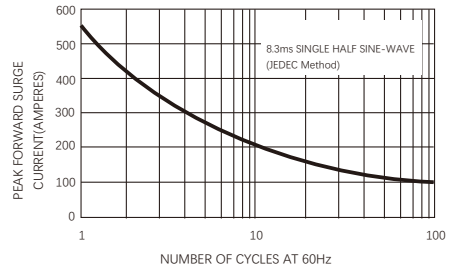


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

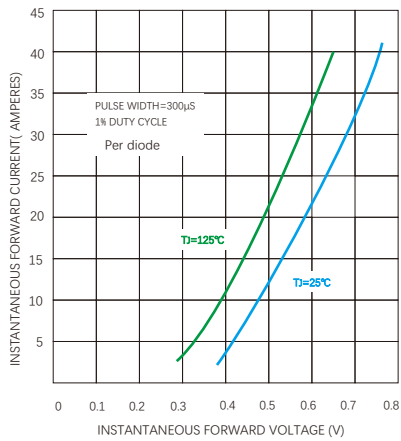


FIG.4-TYPICAL REVERSE CHARACTERISTICS

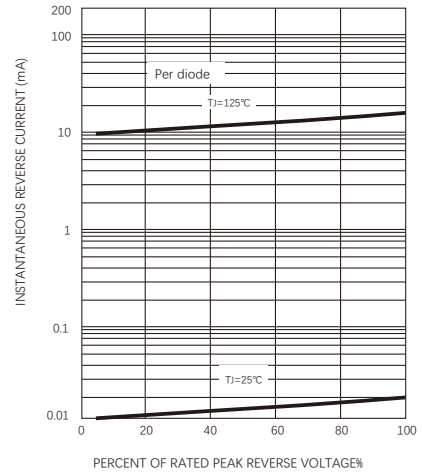
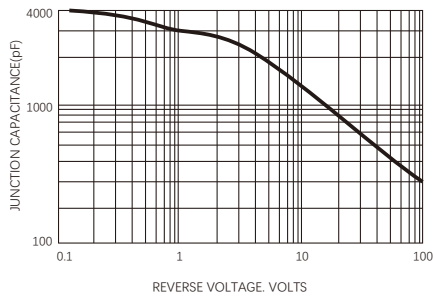


FIG.5-TYPICAL JUNCTION CAPACITANCE



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