



JSPS80150ACT

150V 80A Schottky Barrier Rectifier

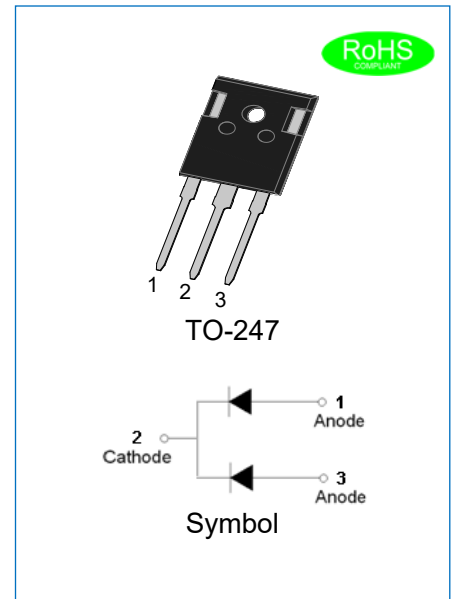
Rev.2.5

FEATURE

- ◇ 175°C Tj operation
- ◇ Low forward voltage drop
- ◇ High purity, high temperature epoxy encapsulation for enhanced mechanical strength and moisture resistance
- ◇ High frequency operation
- ◇ Guard ring for enhanced ruggedness and long term reliability
- ◇ This is a Pb-Free device

APPLICATION

- ◇ Switching power supply
- ◇ Converters
- ◇ Free-wheeling diodes
- ◇ Reverse battery protection
- ◇ Center tap configuration



ABSOLUTE MAXIMUM RATING (Rating at 25°C ambient temperature unless otherwise specified.)

Parameter	Symbol	JSPS80150ACT	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	150	V
Maximum RMS voltage	V_{RMS}	105	V
Maximum DC blocking voltage	V_{DC}	150	V
Average forward current	$I_{F(AV)}$	40(per leg)	A
		80(per device)	
Peak forward surge current: 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	275	A
Operating junction and storage temperature range	T_j, T_{stg}	-55 to +175	°C

ELECTRICAL CHARACTERISTICS (Rating at 25°C ambient temperature unless otherwise specified.)

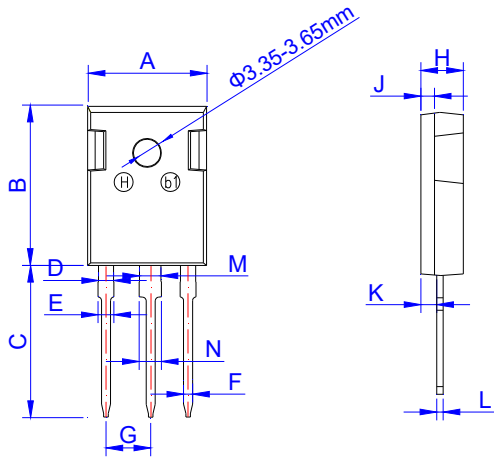
Parameter	Symbol	Min	Typ	Max	Unit
Forward voltage	$I_F=40A$ V_F		0.84	0.90	V
Reverse current at rated DC blocking voltage	$T_A=25^\circ C$ I_R		0.006	0.1	mA
	$T_A=100^\circ C$		0.4	35	



THERMAL RESISTANCES

Symbol	Parameter	JSPS80150ACT	Unit
$R_{th(j-c)}$	Thermal resistance from junction to case	0.4	$^{\circ}C/W$

PACKAGE MECHANICAL DATA



TO-247

Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	15.50	15.80	16.10	0.610	0.622	0.634
B	20.80	21.00	21.20	0.819	0.827	0.835
C	19.70	20.00	20.30	0.776	0.787	0.799
D	1.80	2.00	2.20	0.071	0.079	0.087
E	1.90	2.10	2.30	0.075	0.083	0.091
F	1.00	1.20	1.40	0.039	0.047	0.055
G	5.25		5.65	0.207		0.222
H	4.80	5.00	5.20	0.189	0.197	0.205
J	1.90	2.00	2.10	0.075	0.079	0.083
K	2.20	2.35	2.50	0.087	0.093	0.098
L	0.41	0.60	0.79	0.016	0.024	0.031
M	2.80	3.00	3.20	0.110	0.118	0.126
N	2.90	3.10	3.30	0.114	0.122	0.130

PACKAGE INFORMATION-TO-247

OUTLINE	UNIT WEIGHT (g/PCS) TYP	TUBE (PCS)	PER CARTON (PCS)
TUBE	5.6	30	2,250



CHARACTERISTICS CURVE

FIG.1: Typical forward characteristics(25°C)

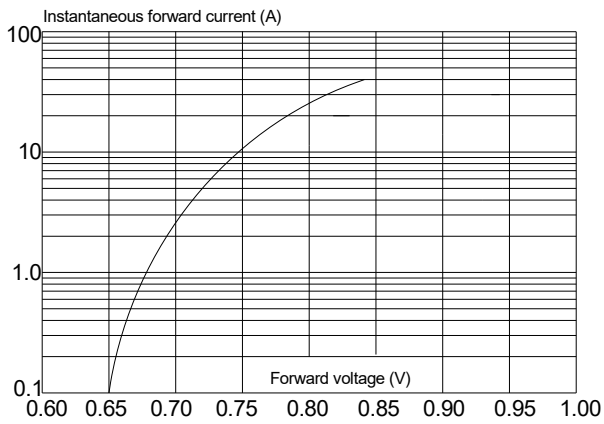


FIG.2: Typical reverse characteristics

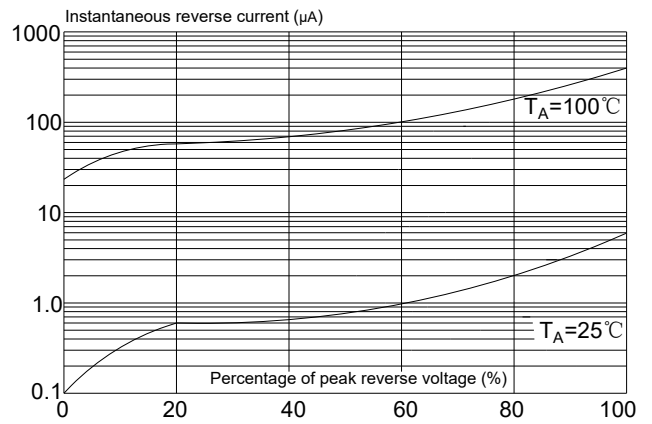


FIG.3: Maximum non-repetitive peak forward surge current

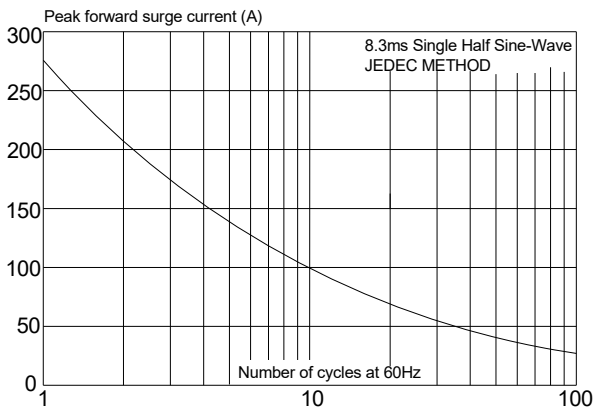
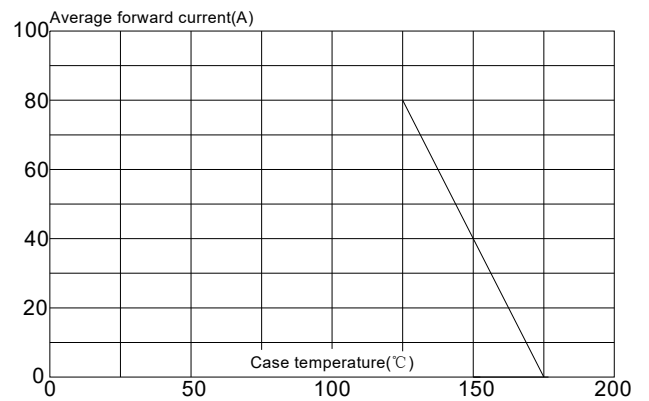


FIG.4: Forward current derating curve





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