PS30U100BCT

Schottky Barrier Rectifier Diode

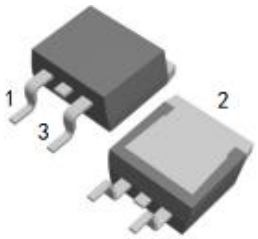
30A,100V

FEATURE

- High current capability
- Ultra low forward voltage drop
- Low power loss, high efficiency
- High surge capability
- High temperature soldering guaranteed

260°C /10seconds, 0.25"(6.35mm)from case

TO-263-2L



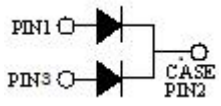
MECHANICAL DATA

- Case: Molded with UL-94 Class V-0 recognized

Flame Retardant Epoxy

- Mounting position: any

Parameter	Values	Unit
$I_{F(AV)}$	30	A
V_{RRM}	100	V
T_J	150	℃
V_F(max)	0.85	V
I_{FSM}	175	A



Ordering Code	Marking	Package	Packaging
PS30U100BCT	PS30U100BCT	TO-263-2L	Tape and reel

Absolute Maximum Ratings(T_C=25℃,unless otherwise noted)

Parameter	Symbol	Values			Unit	Note/Test Conditions
		Min	Typ	Max		
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	-	-	100	V	-
Maximum RMS Voltage	V_{RMS}	-	-	70	V	-
Maximum DC blocking Voltage	V_{DC}	-	-	100	V	-
Maximum Average Forward Rectified Current	$I_{F(AV)}$	-	-	15 30	A	Per Leg Total device,T_C=100°C
Non-Repetitive Forward Surge Current Per Leg	I_{FSM}	-	-	175	A	T_C=25℃, t_p=8.3ms,Half Sine Wave
Typical Junction Capacitance	C_J	-	1874	-	pF	Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
Operating Junction and Storage Temperature Range	T_J,T_{STG}	-55	-	150	℃	-

Thermal Characteristics

Parameter	Symbol	Values			Unit	Note/Test Conditions
		Min	Typ	Max		
Thermal resistance , Channel to Case	$R_{th(ch-c)}$	-	-	2.5	℃/W	-

Electrical Characteristics-(per leg)(T_C=25℃,unless otherwise noted)

Parameter	Symbol	Values			Unit	Note/Test Conditions
		Min	Typ	Max		
Reverse Breakdown Voltage	V_{RRM}	100	-	-	V	I_R=100μA
Forward Voltage Drop	V_F	-	0.44	-	V	I_F=2A,T_J=25℃
		-	0.34	-		I_F=2A,T_J=125℃
Forward Voltage Drop	V_F	-	0.52	-	V	I_F=5A,T_J=25℃
		-	0.47	-		I_F=5A,T_J=125℃
Forward Voltage Drop	V_F	-	0.74	0.85	V	I_F=15A,T_J=25℃
		-	0.66	0.75		I_F=15A,T_J=125℃
Reverse Leakage Current	I_R	-	4.8	100	μA	V_R=100V,T_J=25℃
		-	4067	15000		V_R=100V,T_J=125℃

RATING AND CHARACTERISTIC CURVES

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

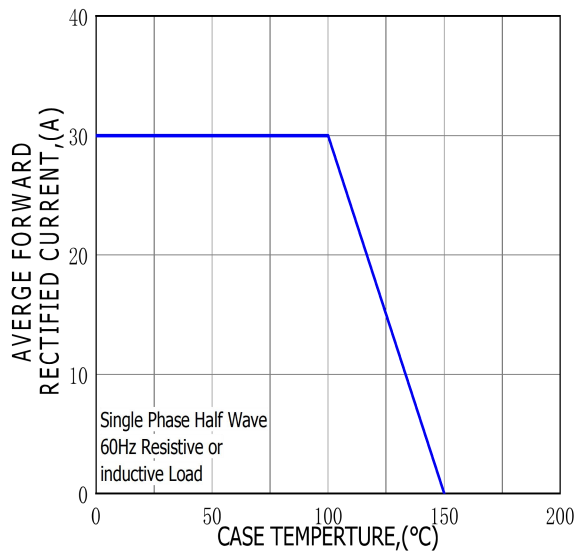


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

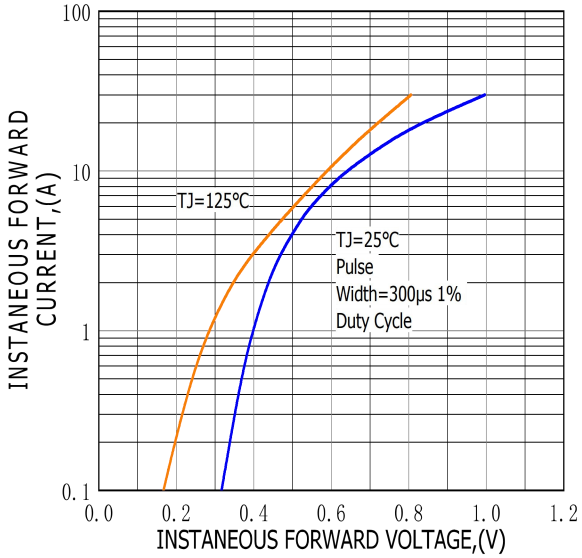


FIG.3-MAXIMUN NON-REPETITIVE FORWARD SURGE CURRENT

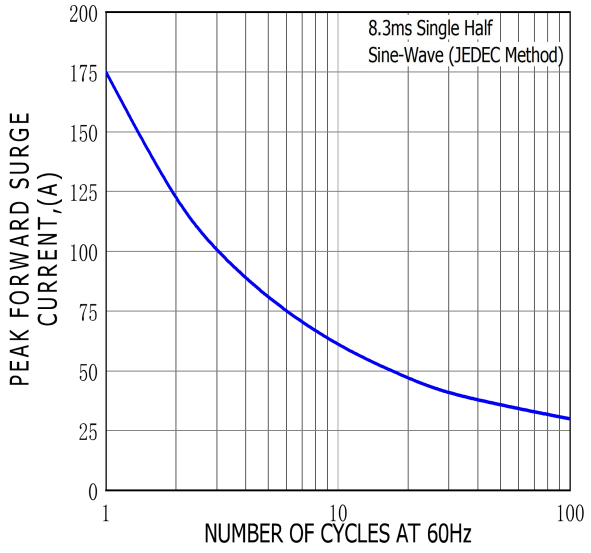
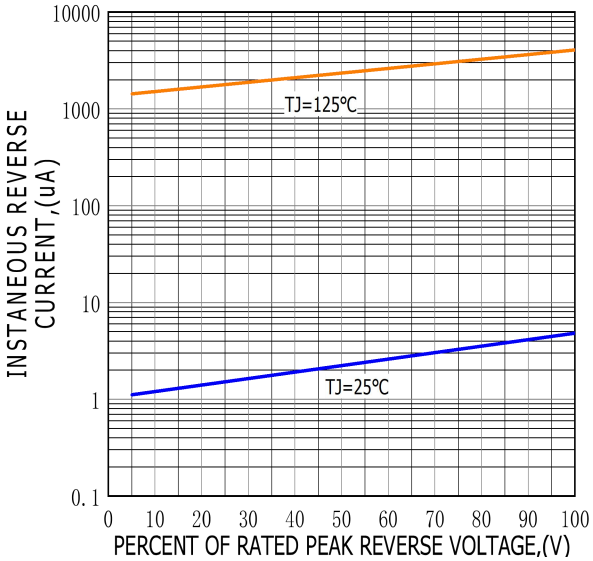
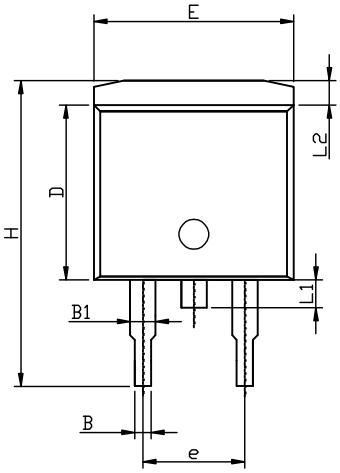


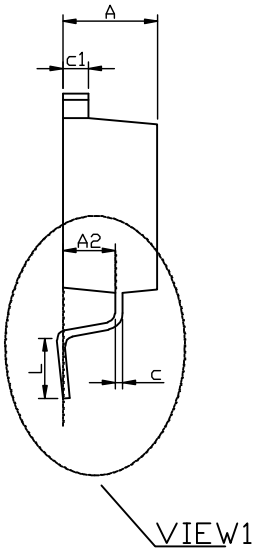
FIG.4-TYPICAL REVERSE CHARACTERISTICS

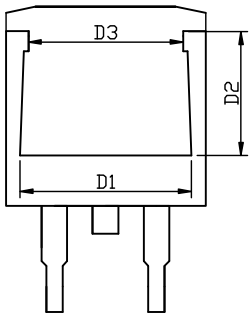


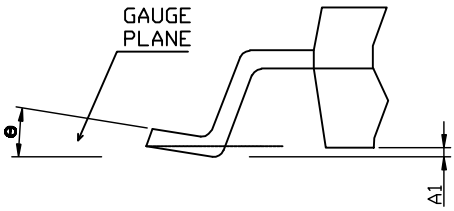
重庆平伟实业股份有限公司
CHONGQING PINGWEI ENTERPRISE CO.,LTD

TO-263-2L PACKAGE OUTLINE

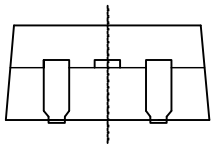




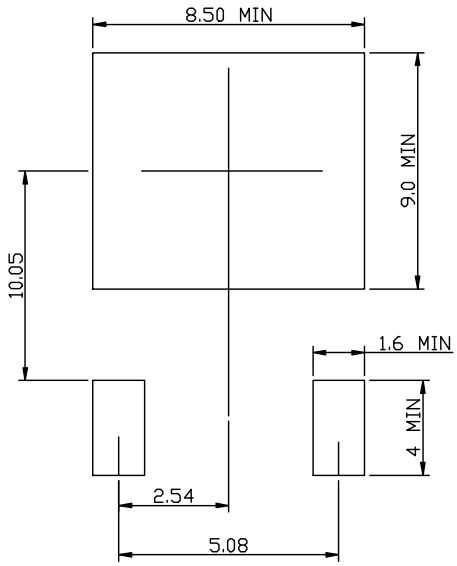




VIEW1



RECOMMENDED LAND PATTERN



	MIN	NOM	MAX
A	4.50	4.70	4.90
A1	0.05	0.15	0.30
A2	2.45	2.60	2.70
B	0.72	0.82	0.92
B1	1.12	1.27	1.42
c	0.28	0.38	0.48
c1	1.17	1.27	1.37
D	8.46	8.66	8.86
D1	7.90	8.10	8.40
D2	5.50	5.70	5.90
D3	7.10	7.30	7.50
E	9.85	10.15	10.45
e		5.08BCS	
H	14.75	15.15	15.55
L	2.30	2.55	2.80
L1	1.20	1.40	1.60
L2	1.01	1.23	1.50
θ	0°	7°	8°

UNIT: mm