YANGZHOU POSITIONING TECH. CO., LTD

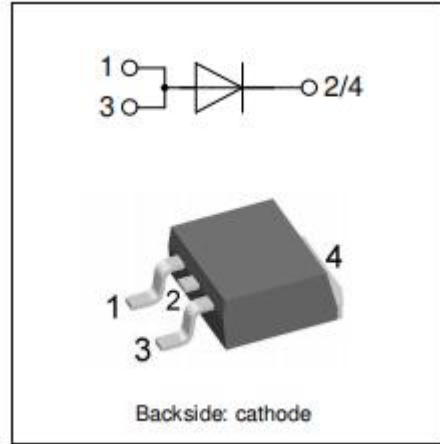## YZPST-ZP3016-RD3016-ZP30A1600V 30A Rectifier Diode

DESCRIPTION:

The rectifier High Voltage Series has been optimized for very low forward voltage drop. The glass passivation technology used has reliable operation up to 150 °C junction temperature

Backside: cathode

APPLICATIONS:

• Input rectification

• Semiconductors switches and output rectifiers which are available in identical package outlines

ABSOLUTE MAXIMUM RATINGS

Parameter	Symbol	Test Conditions	Value	Unit
Storage junction temperature range	T_{stg}		-55 ~150	℃
Operating junction temperature range	T_j		-55~150	℃
Maximum Repetitive peak reverse voltage	V_{RRM}		1600	V
Maximum average forward current	$I_{F(AV)}$	T_C = 105 °C, 180° conduction half sine wave	30	A
Maximum peak one cycle non-repetitive surge current	I_{FSM}	10 ms sine pulse, no voltage reapplied	350	A
I^2t value for fusing (tp=10ms)	I^2t	10 ms sine pulse, no voltage reapplied	612	A^2S

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ELECTRICAL CHARACTERISTICS (T=25℃ unless otherwise specified)

Parameter	Symbol	Test Conditions	Value	Unit
Maximum forward voltage drop	V_{FM}	I_F=30 A	1.2	V
Maximum reverse leakage current	I_{RM}	T_J = 25 °C V_R = Rated V_{RRM}	5	μA
		T_J = 150 °C V_R = Rated V_{RRM}	1.0	mA

Thermal Resistances

Symbol	Parameter	Value	Unit
Rth(j-a)	junction to ambient	45	℃/W
Rth(j-c)	Junction to case	0.9	

Ordering Information Scheme
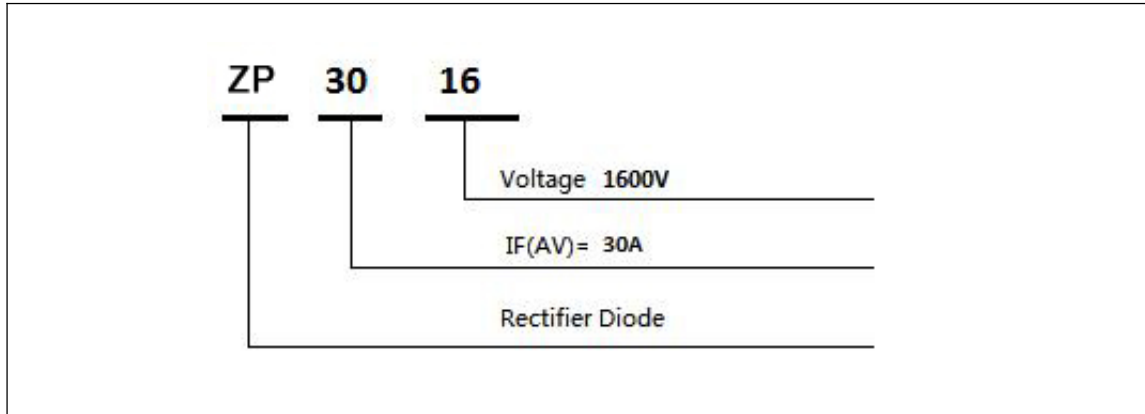
TO-263 Package Mechanical Data
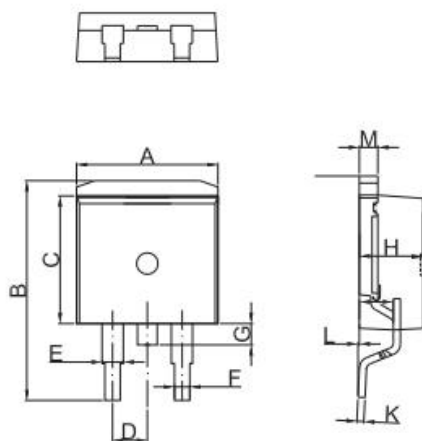
TO-263

Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	9.90		10.20	0.390		0.402
B	14.70		15.80	0.579		0.622
C	9.4		9.6	0.37		0.378
D		2.54			0.100	
E	1.20		1.40	0.047		0.055
F	0.75		0.85	0.029		0.033
G			1.75			0.069
H	4.40		4.70	0.173		0.185
J	2.30		2.70	0.091		0.106
K	0.38		0.55	0.015		0.022
L	0	0.10	0.25	0	0.004	0.010
M	1.25		1.35	0.049		0.053

FIG.1 Typical forward Characteristics

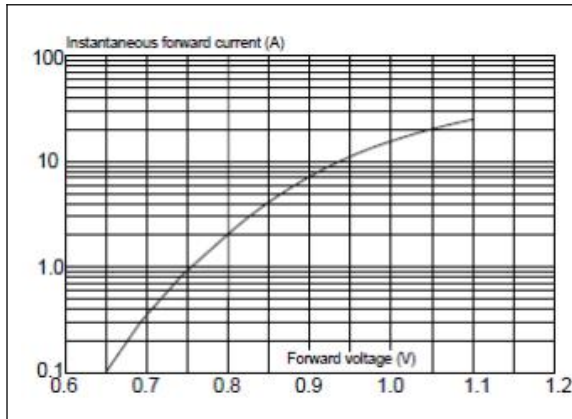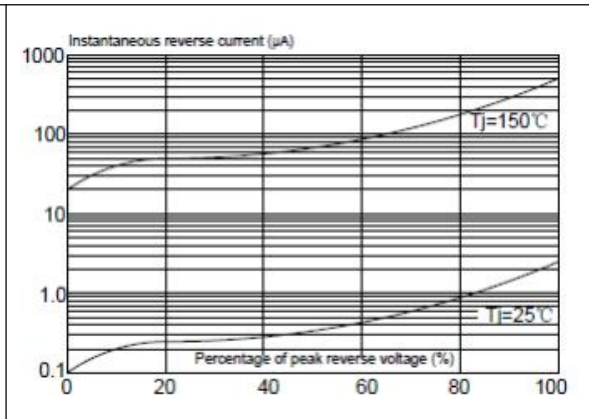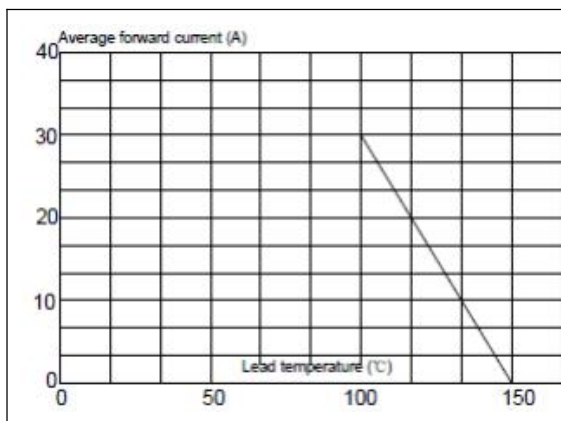**FIG.2: Typical reverse Characteristic**

FIG.3: Forward current derating curve

FIG.4: Maximum Non-Repetitive peak forward Surge Current