

RD30 30A Rectifier Diode

FEATURES

- Glass passivated chip junction
- High surge current capability
- High voltage and Durability

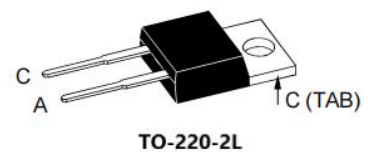
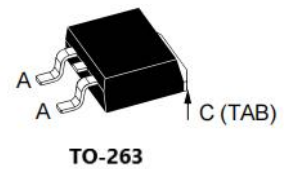
APPLICATIONS

- DC Power Supplies
- Field Supply for DC motors
- Power Rectifiers



Parameters Summary

VR:1200V/1600V IF(AV):30A



ABSOLUTE MAXIMUM RATINGS

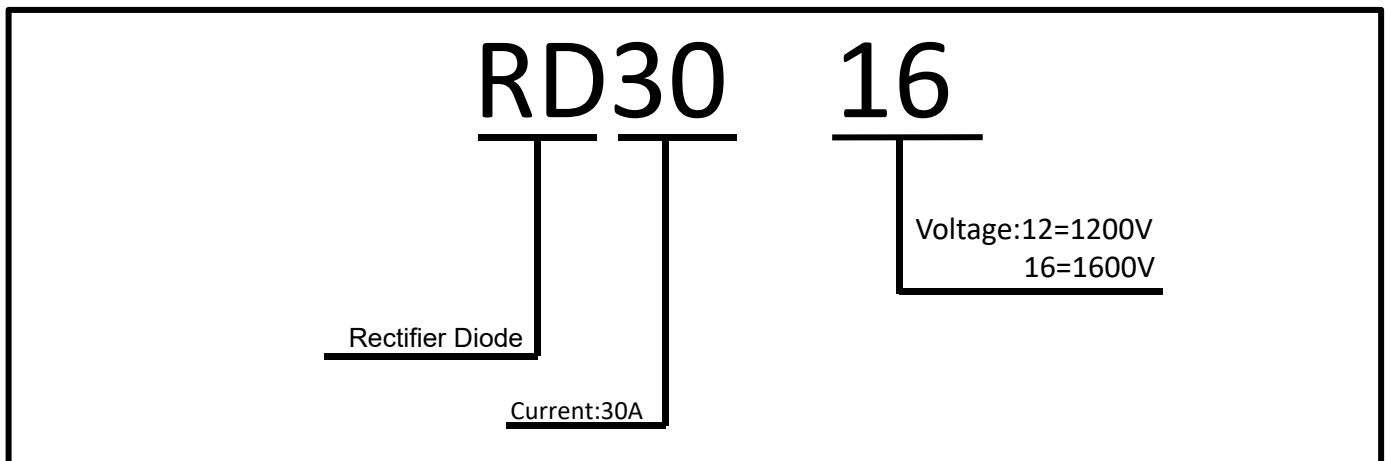
Parameter	Symbol	Value	Unit
Storage junction temperature range	Tstg	-55 ~150	°C
Operating junction temperature range	Tj	-55~150	°C
Maximum Repetitive peak reverse voltage	VRRM	1600	V
Maximum RMS Voltage	VRMS	1120	V
Maximum DC Blocking Voltage	VDC	1600	V
Average Forward Current	I _{F(AV)}	30	A
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave, 1 cycle, Tj=25°C	I _{FSM}	350	A
Typical junction capacitance VR=4.0V, f=1MHz	C _J	150	pF

Thermal Resistances

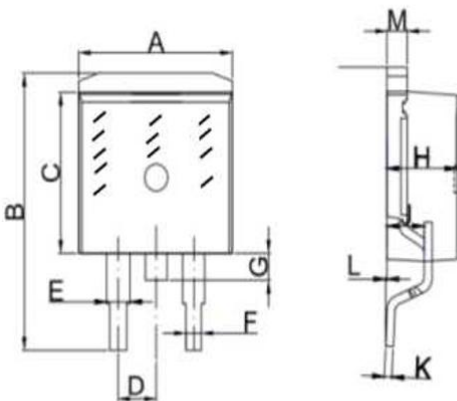
Symbol	Parameter	Value	Unit
Rth(j-c)	thermal resistance junction to case	0.9	°C/W

ELECTRICAL CHARACTERISTICS (T=25°C unless otherwise specified)				
Parameter		Symbol	Value	Unit
Maximum instantaneous forward voltage drop per diode @ IF=30A		V_F	1.2	V
Maximum DC reverse current at rated DC blocking voltage per diode	Tj=25°C	I_R	5	μA
	Tj=150°C		1	mA

Ordering Information Scheme

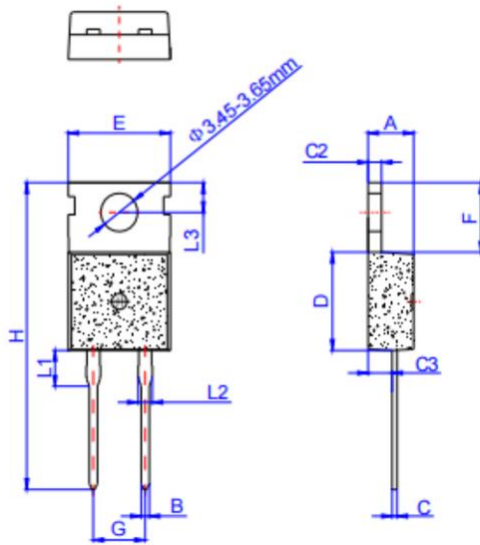


TO-263 Package Mechanical Data



Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	9.90		10.5	0.390		0.402
B	14.70		15.80	0.579		0.622
C	8.8		9.2	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		0.25	0	0.004	0.010
M	1.25		1.35	0.049		0.053

TO-220C-2L Package Mechanical Data



Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	4.40		4.60	0.173		0.181
B	0.70		0.90	0.028		0.035
C	0.45		0.60	0.018		0.024
C2	1.30		1.48	0.048		0.052
C3	2.20		2.60	0.087		0.102
D	8.90		9.90	0.350		0.390
E	9.90		10.3	0.390		0.406
F	6.30		6.90	0.248		0.272
G		5.08			0.200	
H	28.0		29.8	1.102		1.173
L1		3.39			0.133	
L2	1.14		1.70	0.045		0.067
L3	2.65		2.95	0.104		0.116
e		3.6			0.142	

FIG.1: Typical forward characteristics

FIG.2: Typical reverse characteristics

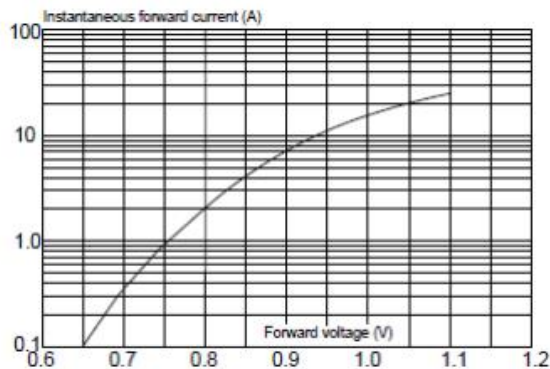


FIG.3: Forward current derating curve

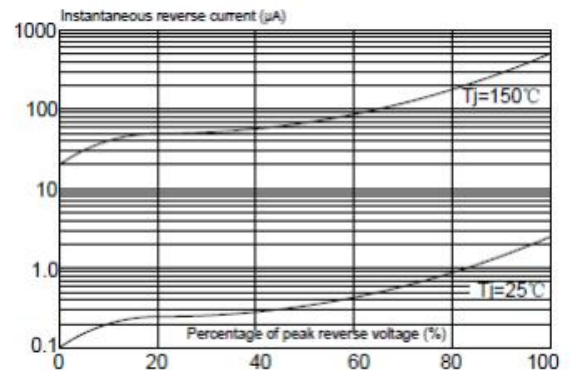
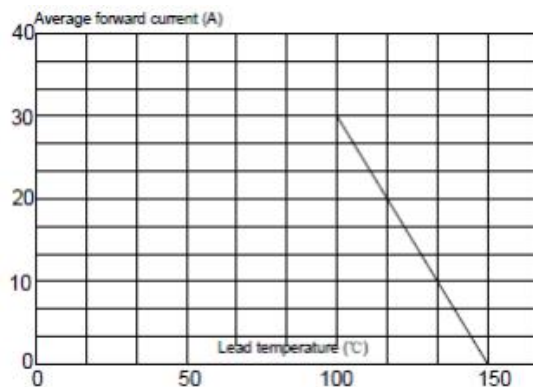


FIG.4: Maximum Non-Repetitive peak forward Surge Current

