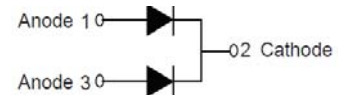
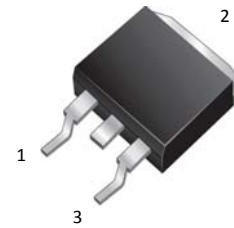




1. Features

- Metal silicon junction, majority carrier conduction.
- Low power loss, high efficiency.
- High current capability.
- High reliability.
- Guardring for overvoltage protection.
- RoHS Compliant.

TO-263



2. Mechanical Data

- Case:Molded Plastic,TO263 .
- Epoxy:UL 94V-0 rate flame retardant.
- Terminals:Plated Leads Solderable per MIL-STD-750,Method-2026.
- Marking:marked on body.
- Mounting Position : Any.

3. Maximum Ratings and Electrical Characteristics

Electrical Characteristics Rating at 25°C ambient temperature unless otherwise specified.

PARAMETER			SYMBOL	MBR30150CG			UNIT
Maximum Recurrent Peak Reverse Voltage			V _{RRM}	150			V
Maximum RMS Voltage			V _{RMS}	105			V
Maximum DC Blocking Voltage			V _{DC}	150			V
Average Rectified Output Current @T _c =100℃			I _{F(AV)}	30.0			A
Peak Forward Surge Current 8.3ms Single half sine-wave superimposed @T _j =25℃ on rated load (JEDEC Method)			I _{FSM}	300			A
I ² t Rating for Fusing (t < 8.3ms)			I ² t	373.50			A
			R _{θJC}	2.3			℃/W
Operating Temperature Range			T _j	175			℃
Storage Temperature Range			T _{STG}	-55 to+175			℃
PARAMETER			SYMBOL	MIN	TYP	MAX	UNIT
Instantaneous Forward Voltage	I _F =5A	T _J =25℃	V _{FM}	-	0.72		V
		T _J =125℃		-	0.60		
	I _F =10A	T _J =25℃		-	0.77		
		T _J =125℃		-	0.64		
	I _F =15A	T _J =25℃		-	0.81	0.88	
		T _J =125℃		-	0.68		
Maximum DC reverse current @T _J =25℃			I _R	-		1.00	uA
at rated DC blocking voltage @T _J =125℃				-	1.02	5.00	mA



4. Rating And Characteristic Curves

Fig. 1 Forward Current Derating Curve

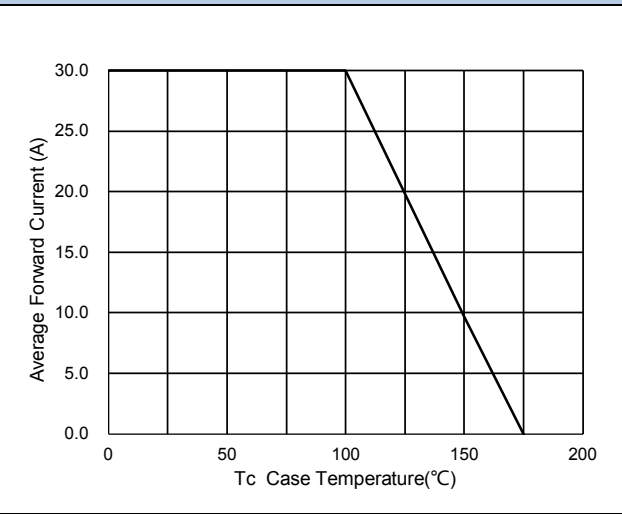


Fig. 2 Typical Forward Characteristics

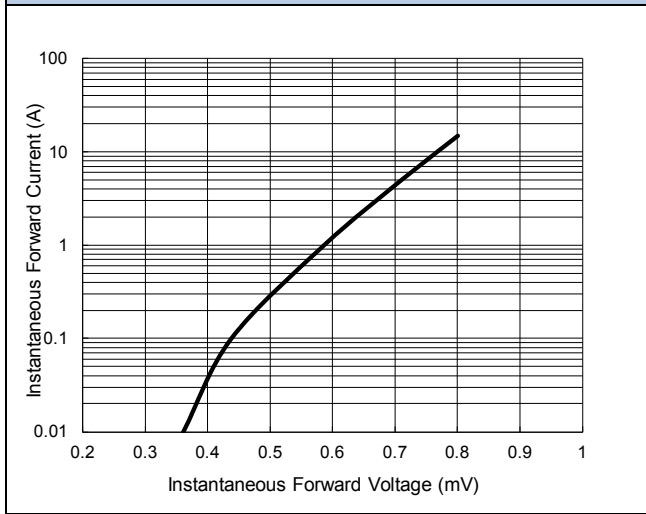


Fig. 3 Forward Surge Current Capability

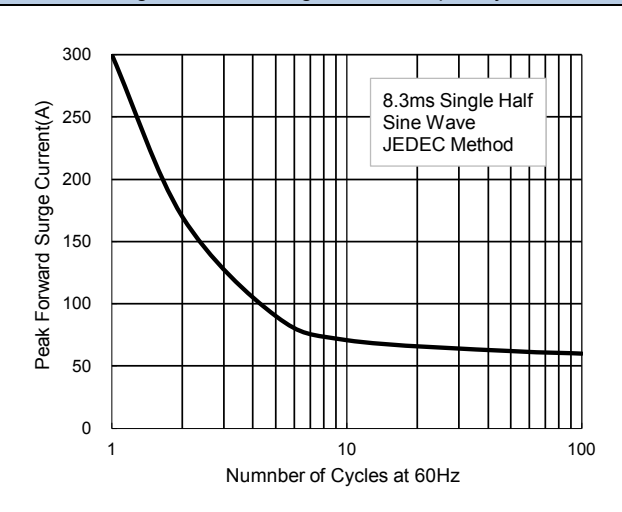
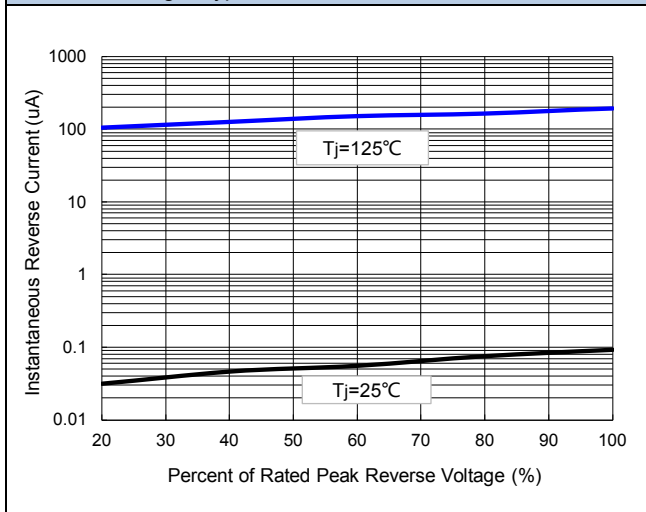
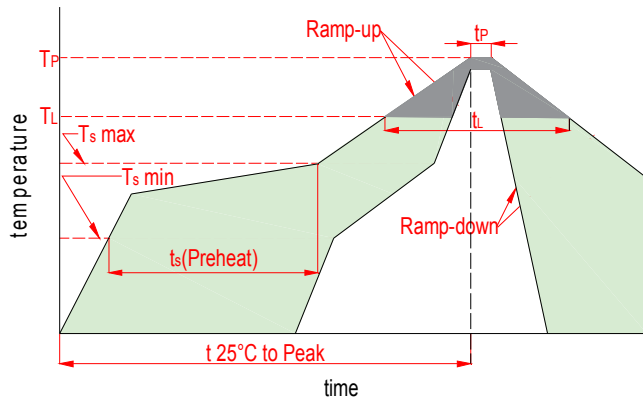


Fig.4 Typical Reverse Characteristics



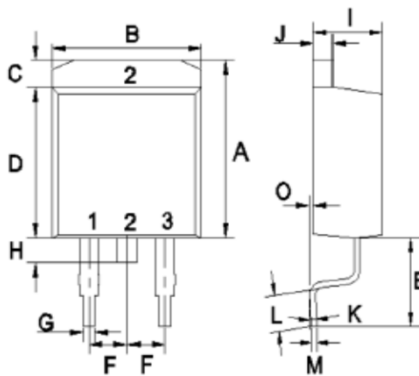


5. Soldering Parameters



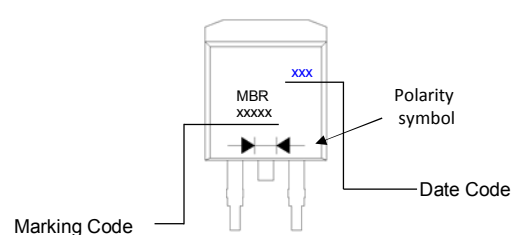
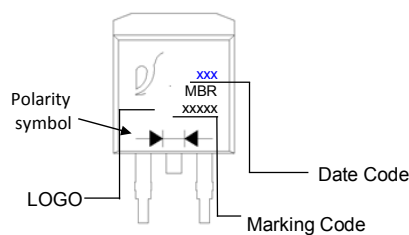
Reflow Condition		Lead-free
Pre Heat	Temp. min(T_s (min))	150℃
	Temp. max(T_s (min))	200℃
	Time(min to max)(t_s)	60~120s
Aver. ramp up rate(Liquidus Temp.)(T_L)to peak		3℃/s max
T_s (max) to T_L -Ramp-up Rate		3℃/s max
Reflow	Temp.(T_L)(Liquidus)	217℃
	Temp.(t_L)(Liquidus)	60~150s
Peak Temp.(T_P)		260 ^{+0/-5} ℃
Time within actual peak Temp.(t_p)		30s max
Ramp-down Rate		6℃/s max
Time 25℃ to peak Tempe.(T_P)		8 minutes max
Do not exceed		260℃

6. Dimensions



Dimensions	Inches		Millimeters	
	Min	Max	Min	Max
A	0.411	0.427	10.44	10.84
B	0.386	0.402	9.81	10.21
C	0.057	0.072	1.44	1.84
D	0.346	0.362	8.80	9.20
E	0.176	0.183	4.46	4.66
F	0.096	0.104	2.44	2.64
G	0.024	0.040	0.61	1.01
H	0.028	0.051	0.70	1.30
I	0.168	0.192	4.27	4.87
J	0.042	0.058	1.07	1.47
K			0°	8°
L	0.083	0.098	2.10	2.50
M	0.012	0.018	0.30	0.46
O	0.000	0.010	0.00	0.25

7. Part Marking System



8. Package Information

Package	Tape Width (mm)	Reel Size		Quantity(pcs)
		mm	inch	
TO263	24	330	13	800



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