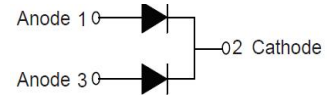
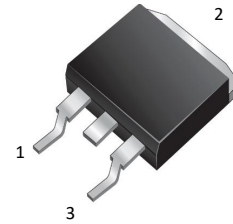




### 1. Features

- 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	MURB8120G				UNIT
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	1200				V
Maximum RMS Voltage	$V_{RMS}$	840				V
Maximum DC Blocking Voltage	$V_{DC}$	1200				V
Average Rectified Output Current @ $T_c=100^\circ\text{C}$	$I_{F(AV)}$	8.0				A
Peak Forward Surge Current 8.3ms Single half sine-wave superimposed @ $T_j=25^\circ\text{C}$ on rated load (JEDEC Method)	$I_{FSM}$	130				A
$I^2t$ Rating for Fusing ( $t < 8.3\text{ms}$ )	$I^2t$	70.14				A
Maximum Instantaneous Forward Voltage @ $I_F=5\text{A}$	$V_{FM}$	0.65	0.75	0.85	0.90	V
Maximum DC reverse current @ $T_j=25^\circ\text{C}$ at rated DC blocking voltage @ $T_j=125^\circ\text{C}$	$I_R$	10				mA
		200				
Typical Thermal Resistance	$R_{\theta JC}$	2				$^\circ\text{C/W}$
Operating Temperature Range	$T_j$	-55 to+150		-55 to+175		$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-55 to+150				$^\circ\text{C}$



### 4. Rating And Characteristic Curves

Fig.1 FORWARD CURRENT DERATING CURVE

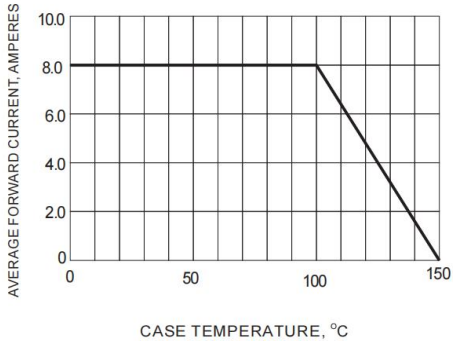


Fig.2 TYPICAL JUNCTION CAPACITANCES

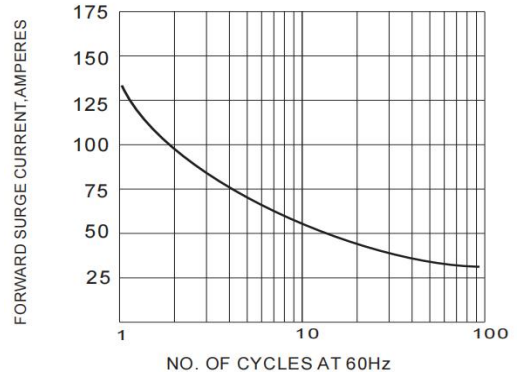


Fig.3 FORWARD CHARACTERISTICS

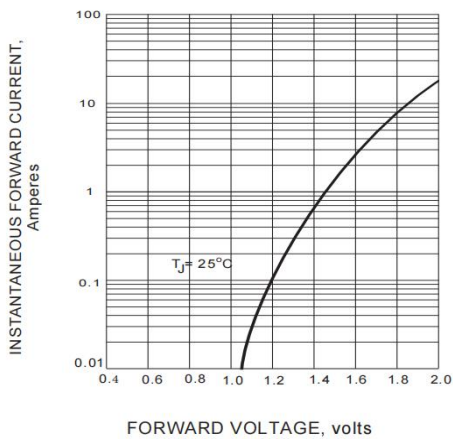
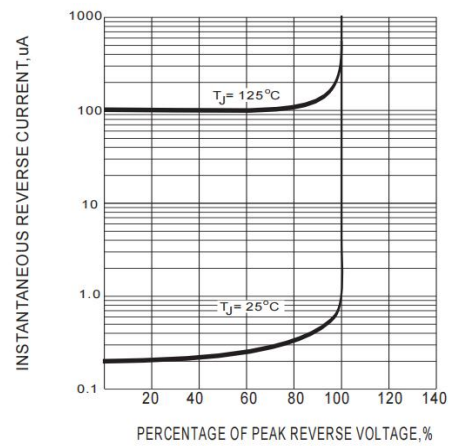
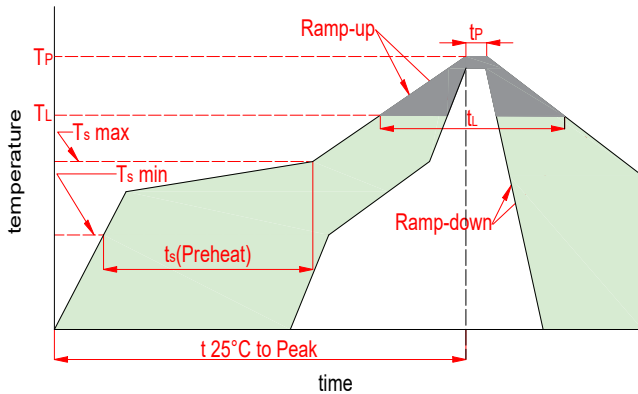


Fig.4 TYPICAL REVERSE CHARACTERISTICS



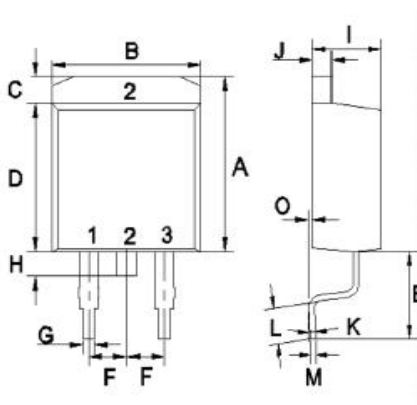


### 5. Soldering Parameters



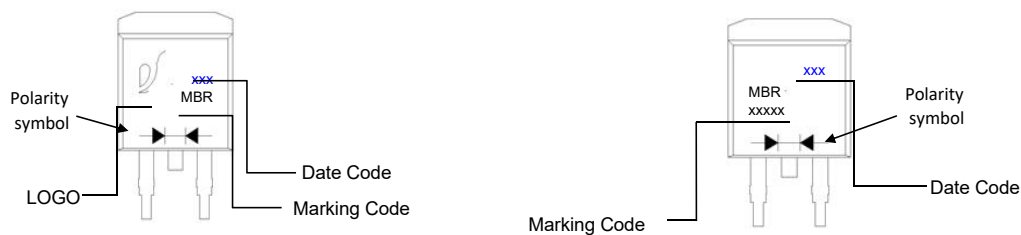
Reflow Condition		Lead-free
Pre Heat	Temp. min( $T_s$ (min))	150°C
	Temp. max( $T_s$ (min))	200°C
	Time(min to max)( $t_s$ )	60~120s
Aver. ramp up rate(Liquidus Temp.)( $T_L$ )to peak		3°C/s max
$T_s$ (max) to $T_L$ -Ramp-up Rate		3°C/s max
Reflow	Temp.( $T_L$ )(Liquidus)	217°C
	Temp.( $t_L$ )(Liquidus)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

### 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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