

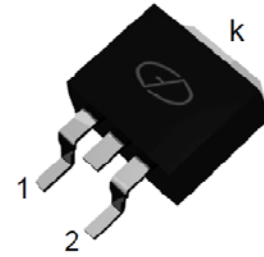


MURB1040CT

Ultrafast Recovery Planar Diode
Reverse Voltage 400 Volts Forward Current 10 Amperes

Features

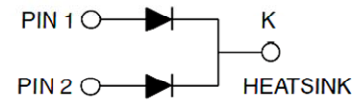
- FRED (Planar) wafer construction
- Ultrafast recovery time
- Low forward voltage drop, low power losses
- High efficiency operation
- Plastic package has underwriters Laboratory Flammability Classification 94V-0



Package: TO-263

Mechanical Data

- Case: Epoxy, Molded
- Weight: 1.4grams (approximately)
- Finish: All External Surfaces Corrosion Resistant and Terminal Leads are Readily Solderable
- Lead Temperature for Soldering Purposes: 260°C Max. for 10 sec
- Shipped 50 units per plastic tube or tape reel packing 800/reel



Maximum Ratings & Electrical Characteristics

($T_A=25^\circ\text{C}$ unless otherwise noted)

PARAMETER	TEST CONDITIONS		SYMBOL	MURB1040CT	UNIT
Maximum repetitive peak reverse voltage			V_{RRM}	400	V
Working peak reverse voltage			V_{RWM}	400	V
Maximum DC blocking voltage			V_{DC}	400	V
Maximum average forward rectified current at $T_c=105^\circ\text{C}$ total device per diode			$I_F(AV)$	10 5	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load per diode			I_{FSM}	90	A
Voltage rate of change(rated V_R)			DV/dt	10000	V/us
Operating junction temperature range			T_J	-55 to +150	$^\circ\text{C}$
Storage temperature range			T_{STG}	-55 to +150	$^\circ\text{C}$
Maximum Reverse Recover Time ($I_F=0.5\text{Amp}$, $I_R=1.0\text{Amp}$, $I_{rec}=0.25\text{Amp}$)	T_{rr}		T_{rr}	35	ns
Maximum instantaneous forward voltage per leg	$I_F=5\text{A}$ $I_F=5\text{A}$	$T_c=25^\circ\text{C}$ $T_c=125^\circ\text{C}$	V_F	1.40 1.30	V
Maximum reverse current per leg at working peak Reverse voltage		$T_J=25^\circ\text{C}$ $T_J=100^\circ\text{C}$	I_R	10 500	μA μA
Thermal Characteristics $T_A=25^\circ\text{C}$ unless otherwise noted					
Symbol	Parameter	TYP. (TO-263)			Unit
$R_{\theta JC}$	Thermal Resistance, Junction to Case per Leg	2.0			$^\circ\text{C}/\text{W}$
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient per Leg	62.5			$^\circ\text{C}/\text{W}$

Note : Pulse test:300us pulse width, duty cycle=2%



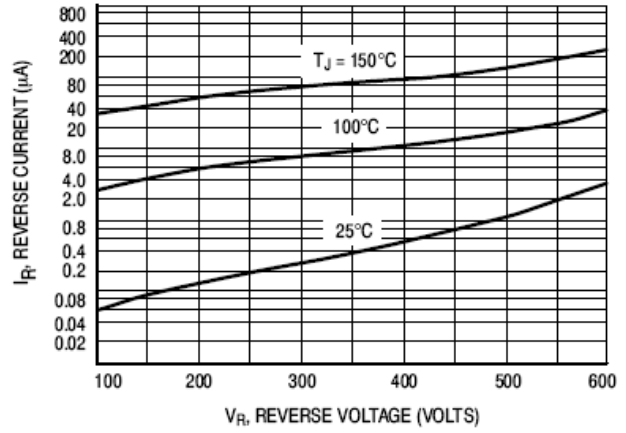
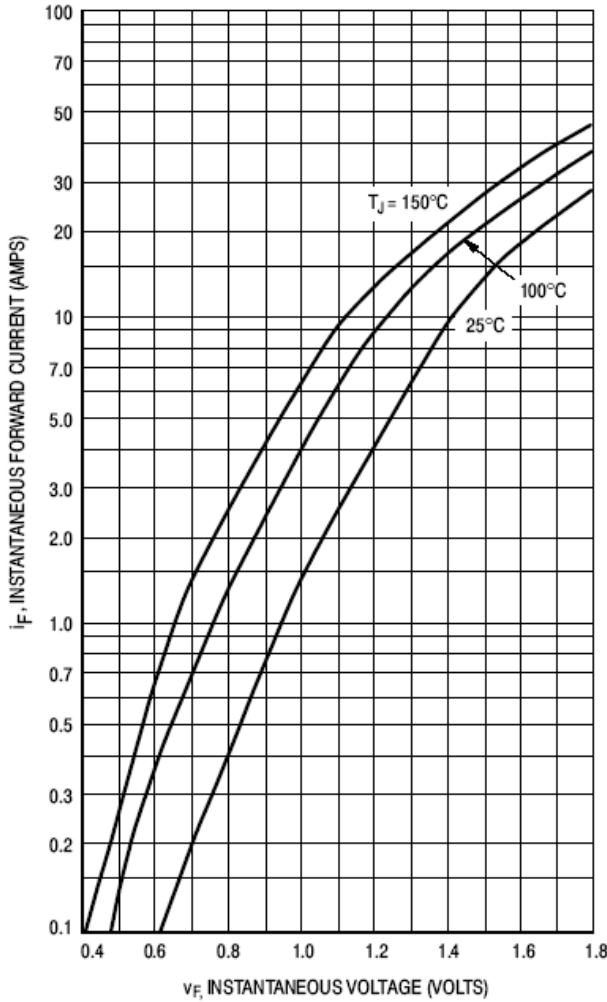
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Ultrafast Recovery Planar Diode

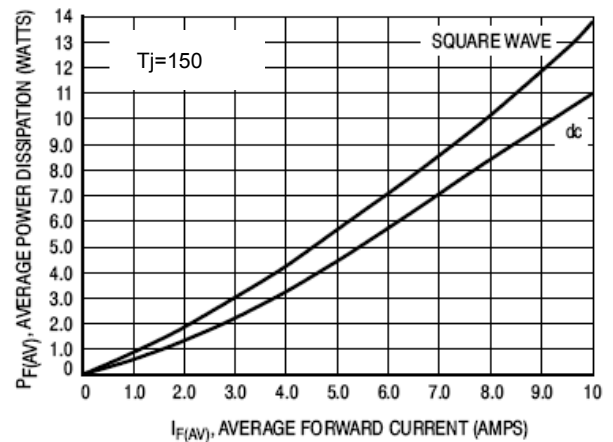
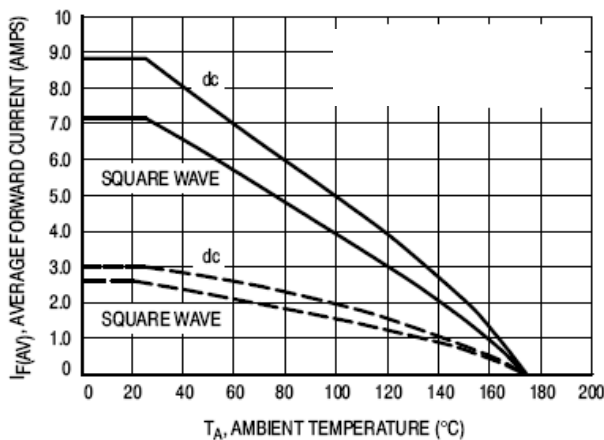
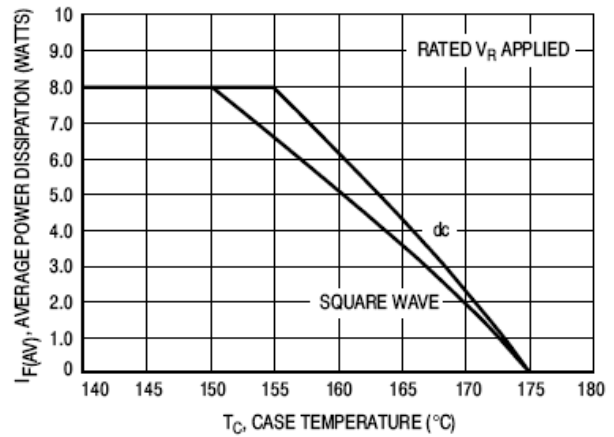
Reverse Voltage 400 Volts Forward Current 10 Amperes

Ratings and Characteristics Curves

($T_A = 25^\circ\text{C}$ unless otherwise noted)



* The curves shown are typical for the highest voltage device in the voltage grouping. Typical reverse current for lower voltage selections can be estimated from these same curves if V_R is sufficiently below rated V_R .



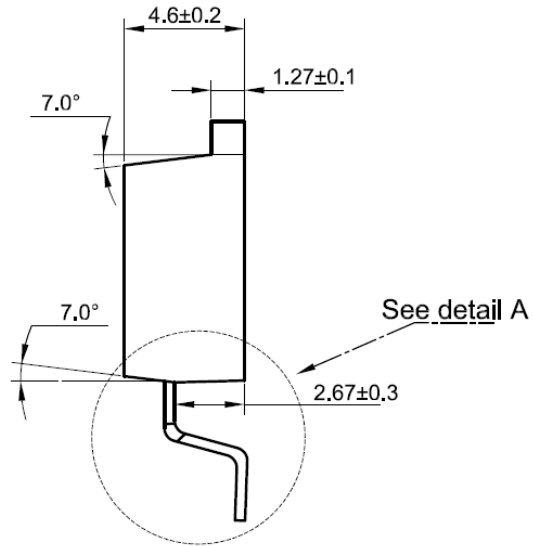
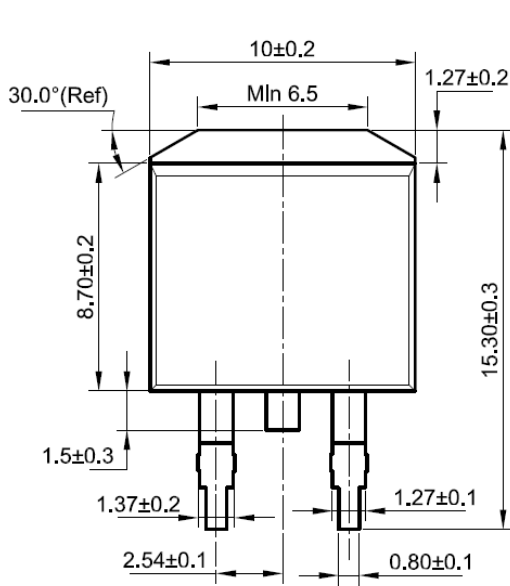


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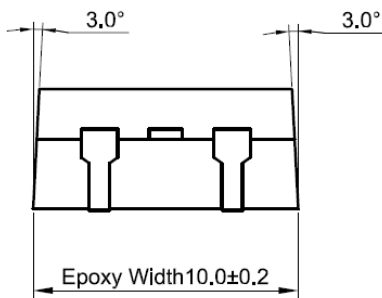
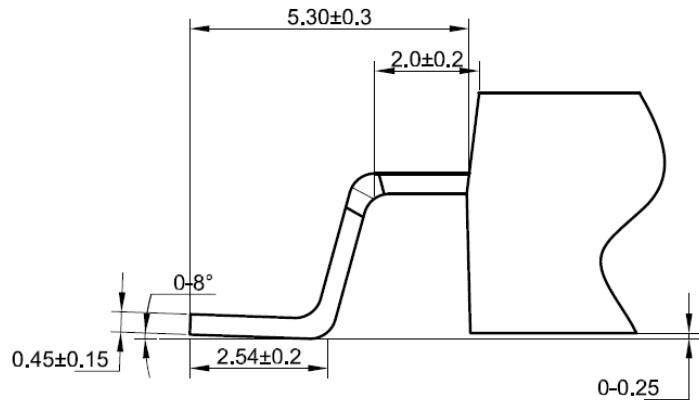
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Package Outline Dimensions

Unit: millimeters **TO-263**



Detail A





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