

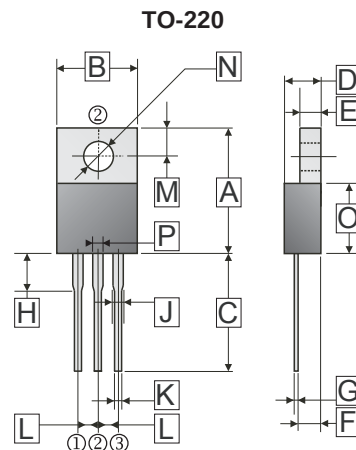
RoHS Compliant Product
A suffix of "-C" specifies halogen free

FEATURES

- Ultrafast Recovery Time
- Low Switching Noise
- Low Forward Voltage Drop
- Low Leakage Current
- High Junction Temperature Application
- 16 Amperes Total (8 Amperes Per Diode Leg)

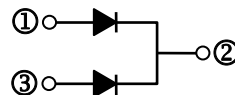
MECHANICAL DATA

- Case : TO-220 Molded Plastic
- Plastic Materials used Carries Underwrites Laboratory Flammability Classification 94V-O
- Lead Temperature for Soldering Purpose : 260°C Max. for 10 Seconds



Dimensions in millimeter

REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	14.22	16.51	J	1.09	1.78
B	9.65	10.67	K	0.38	1.02
C	12.70	14.73	L	2.39	2.69
D	3.56	4.90	M	2.50	3.43
E	0.51	1.45	N	3.10	4.09
F	2.03	2.92	O	8.38	9.65
G	0.31	0.76	P	0.89	1.45
H	3.6	4.5			



ABSOLUTE MAXIMUM RATINGS

Parameter	Symbol	Values	Units
Peak Repetitive Reverse Voltage	V_{RRM}	200	V
Working Peak Reverse Voltage	V_{RWM}		
DC Blocking Voltage	V_{DC}		
RMS Voltage	V_{RMS}	140	V
Average Rectifier Forward Current per Leg	$I_{F(AV)}$	8	A
Total Device (Rated V_R)		16	
Peak Repetitive Forward Current per Leg (Rated V_R , Square Wave, 20KHz)	I_{FM}	16	A
Non-Repetitive Peak Surge Current Per Leg (Surge applied at rate load conditions half-wave, single phase, 60Hz)	I_{FSM}	100	A
Typical thermal resistance junction to Case	$R_{\theta JC}$	3.5	°C / W
Operating Junction and Storage Temperature Range	T_J, T_{STG}	175, -55 ~ 175	°C

ELECTRICAL CHARACTERISTICS

Parameter	Symbol	Min.	Typ.	Max.	Units	Test Conditions
Breakdown Voltage	V_{BR}	200	-	-	V	
Instantaneous Forward Voltage	V_F	-	0.91	0.95	V	$I_F=8A, T_J=25^{\circ}C$
		-	-	0.8		$I_F=8A, T_J=150^{\circ}C$
		-	1.03	1.1		$I_F=16A, T_J=25^{\circ}C$
		-	-	0.92		$I_F=16A, T_J=150^{\circ}C$
Instantaneous Reverse Current	I_R	-	0.01	5	μA	Rated DC Voltage, $T_J=25^{\circ}C$
		-	5	100		Rated DC Voltage, $T_J=150^{\circ}C$
Reverse Recovery Time	T_{RR}	-	22	30	nS	$I_F=0.5A, I_R=1A, I_{REC}=0.25A, T_J=25^{\circ}C$
Junction Capacitance	C_J	-	-	30	pF	$V_R=200V, T_J=25^{\circ}C$

To evaluate the maximum conduction losses use the following equation : $P_{F(av)} = 0.68 \times I_{F(av)} + 0.015 \times I_{F(RMS)}^2$

RATINGS AND CHARACTERISTIC CURVES

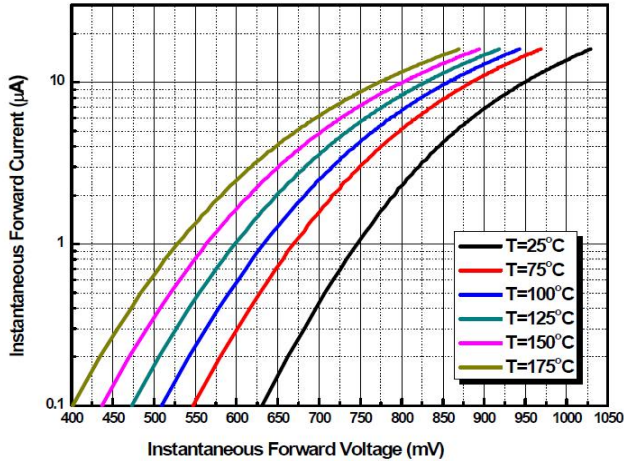


Figure 1. Typical Forward Characteristics Per Diode

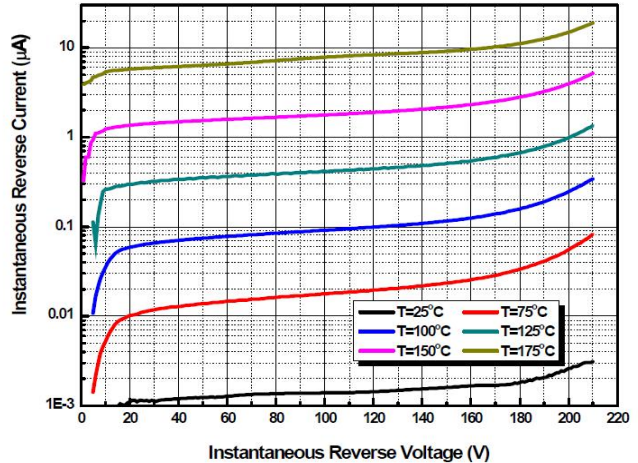


Figure 2. Typical Reverse Characteristics Per Diode

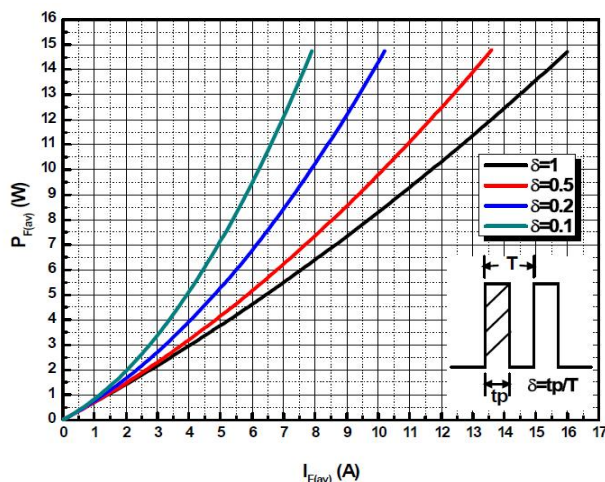


Figure 3. Average Forward Power Dissipation per Diode

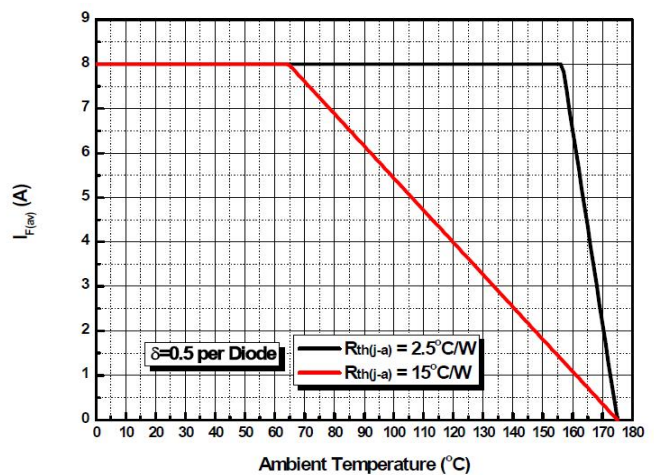


Figure 4. Current Derating Curves

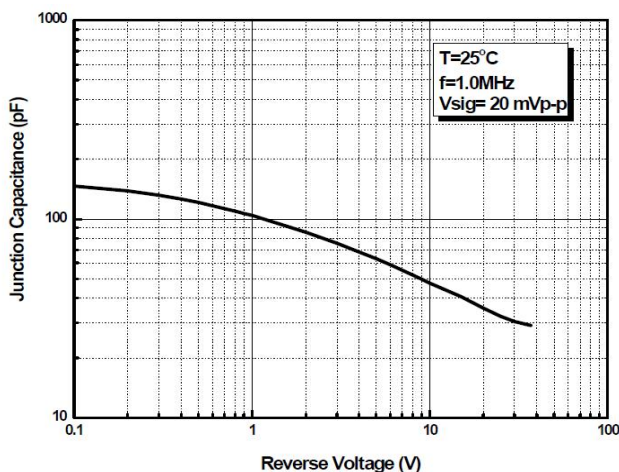


Figure 5. Typical Junction Capacitance Per Diode

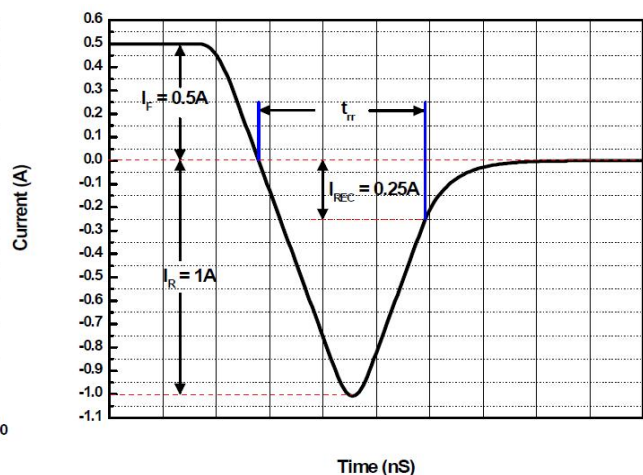


Figure 6. Reverse Recovery Waveform