Features

- Halogen Free Available Upon Request By Adding Suffix "-HF"
- Lead Free Finish/RoHS Compliant (Note1) ("P"Suffix Designates Compliant. See Ordering Information)
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1
- Low Switching Losses and High Efficiency
- Low Reverse Leakage
- Ultrafast Recovery Time
- Planar Structure Die and Soft Recovery Characteristics

16 Amp FRED Rectifiers 200 Volts

Maximum Ratings

- Operating Junction Temperature Range: -55ºC to +175ºC
- Storage Temperature Range: -55ºC to +175ºC
- Maximum Thermal Resistance: 2°C/W Junction to Case

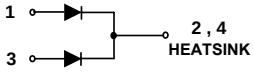
MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MURSB1620CTA	MURSB1620CTA	200V	140V	200V

Electrical Characteristics @ 25°C Unless Otherwise Specified

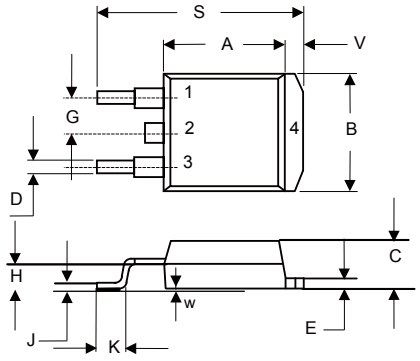
Average Rectified Forward Current	$I_{F(AV)}$	16A	T_C=145ºC	
Peak Forward Surge Current	I_{FSM}	100A	8.3ms,Half Sine	
Instantaneous Forward Voltage	V_F	0.9V(Typ) 1.0V(Max) 0.85V(Max)	I_F=8A; T_J=25ºC I_F=8A; T_J=25ºC I_F=8A; T_J=125ºC	
Maximum Reverse Current At Rated DC Blocking Voltage	I_R	5uA 50uA	T_J=25ºC; T_J=125ºC	
Typical Junction Capacitance	C_J	65pF	Measured at 1.0MHz, V_R=4.0V	
Reverse Recovery Time	t_{rr}	25ns(Typ.) 35ns(Max.)	I_F=0.5A; I_R=1.0A; I_{RR}=0.25A	
		20ns(Typ.) 36ns(Typ.)	T_J=25ºC T_J=125ºC	I_F=8A di_F/dt=-200A/µs V_R=100 V
Peak recovery current	I_{RRM}	3.7A(Typ.) 6.6A(Typ.)	T_J=25ºC T_J=125ºC	
Reverse recovery charge	Q_{rr}	43nC(Typ.) 120nC(Typ.)	T_J=25ºC T_J=125ºC	

Note:1. High Temperature Solder Exemptions Applied, See EU Directive Annex 7a.

Internal Structure

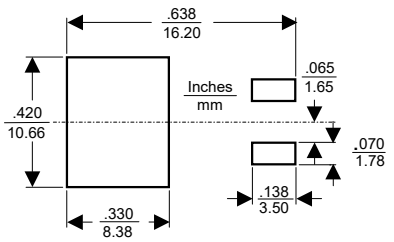


D²-PAK



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.331	0.370	8.40	9.40	
B	0.378	0.417	9.60	10.60	
C	0.165	0.189	4.20	4.80	
D	0.027	0.037	0.68	0.94	
E	0.045	0.055	1.14	1.40	
G	0.010		2.54		TYP.
H	0.096	0.134	2.43	3.40	
J	0.011	0.025	0.28	0.64	
K	0.071	0.131	1.80	3.32	
S	0.575	0.625	14.60	15.87	
V	0.042	0.058	1.07	1.47	
W	0.000	0.010	0.00	0.25	

Suggested Solder Pad Layout



Curve Characteristics

Fig. 1 - Forward Current Derating Curve

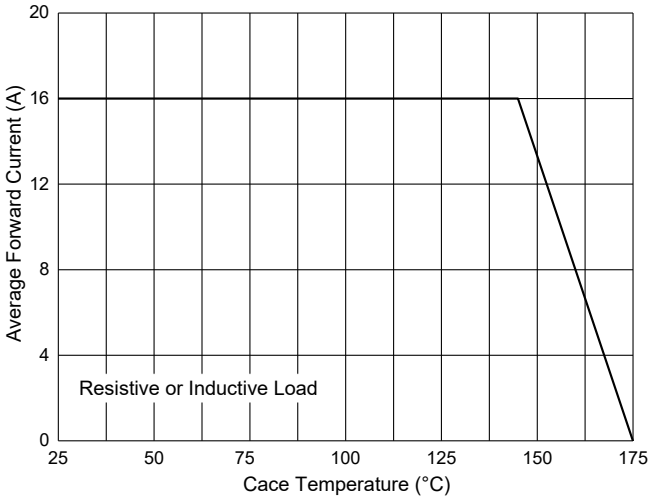


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

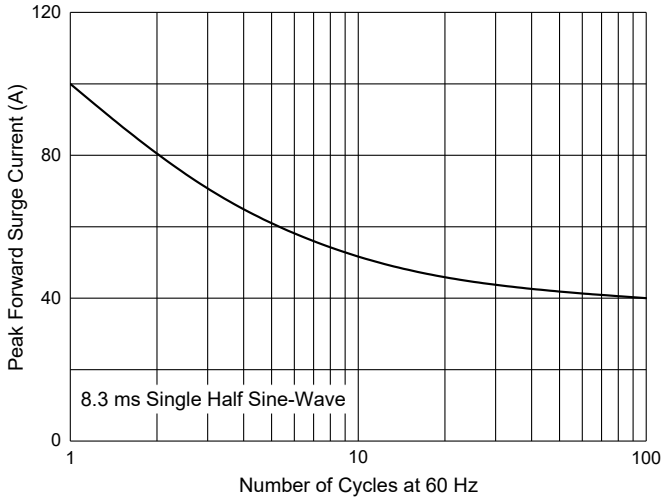


Fig. 3 - Typical Instantaneous Forward Characteristics

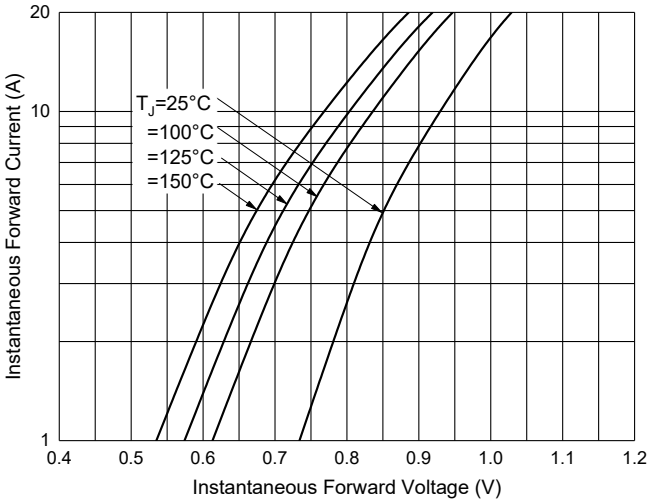
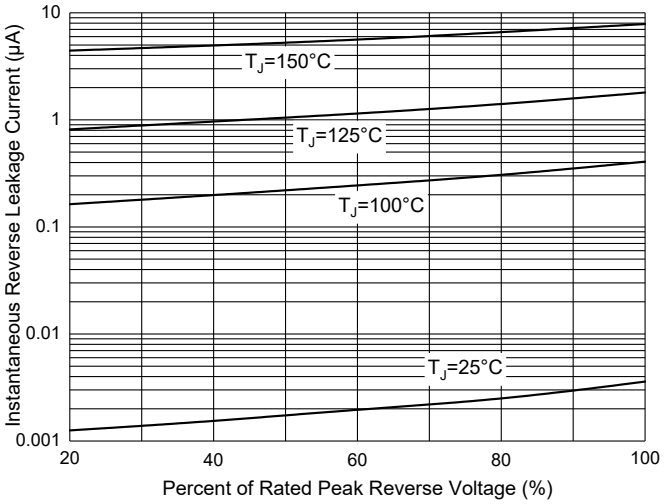


Fig. 4 - Typical Reverse Leakage Characteristics



Ordering Information

Device	Packing
Part Number-TP	Tape&Reel: 800pcs/Reel
Part Number-BP	Bulk:50pcs/Tube,1Kpcs/Box,5Kpcs/Carton

Note : Adding "-HF" Suffix For Halogen Free, eg. Part Number-TP-HF