



Features

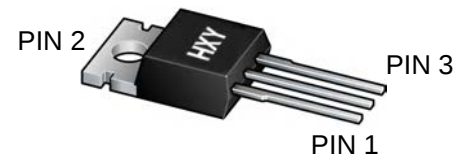
- Lead Free Finish/RoHS Compliant
- Glass Passivated Chip
- High Surge Forward Current Capability
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1

Typical Applications

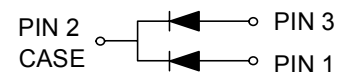
Typical applications are in switching power supplies, converters, freewheeling diodes, and reverse battery protection.

Mechanical Data

- **Package:** TO-220C
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** As marked



TO-220C
(TO-220AB)



Maximum Ratings (T_a=25°C Unless otherwise specified)

Parameter	Symbol	Unit	1610CTG	1615CTG	1620CTG	1640CTG	1660CTG
Device marking code			1610CTG	1615CTG	1620CTG	1640CTG	1660CTG
Repetitive Peak Reverse Voltage	V _{RRM}	V	100	150	200	400	600
Average Rectified Output Current @60Hz half sine-wave, R-load, T _c (FIG.1)	I _o	A	18				
Surge(Non-repetitive)Forward Current @60Hz half sine-wave,1 cycle, T _a =25°C	I _{FSM}	A	100				
Storage Temperature	T _{stg}	°C	-55 ~ +150				
Junction Temperature	T _j	°C	-55 ~ +150				

Electrical Characteristics (T_a=25°C Unless otherwise specified)

Parameter	Symbol	Unit	Test Conditionns	1610CTG	1615CTG	1620CTG	1640CTG	1660CTG
Maximum instantaneous forward voltage drop per diode	V _{FM}	V	I _{FM} =15A	0.975			1.30	1.50
Maximum DC reverse current at rated DC blocking voltage per diode	I _{RRM1}	uA	V _{RM} =V _{RRM} T _a =25°C	5			10	
	I _{RRM2}		V _{RM} =V _{RRM} T _a =125°C	250			500	
Reverse Recovery Time	T _{rr}	ns	I _F =0.5A I _{RM} =1A I _{RR} =0.25A	25			50	



Characteristics (Typical)

Fig. 1 - Forward Current Derating Curve

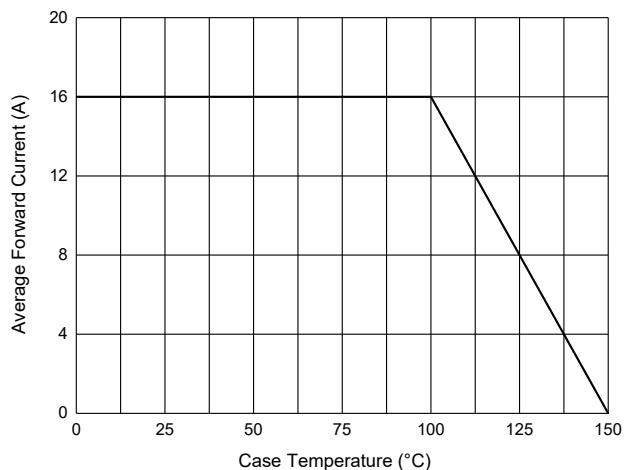


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

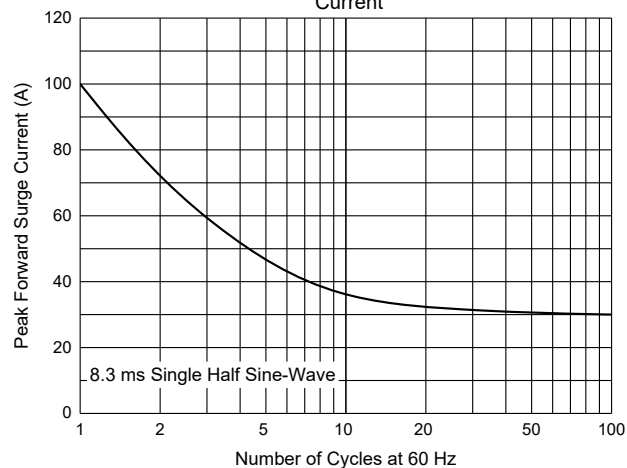


Fig. 3 - Typical Instantaneous Forward Characteristics

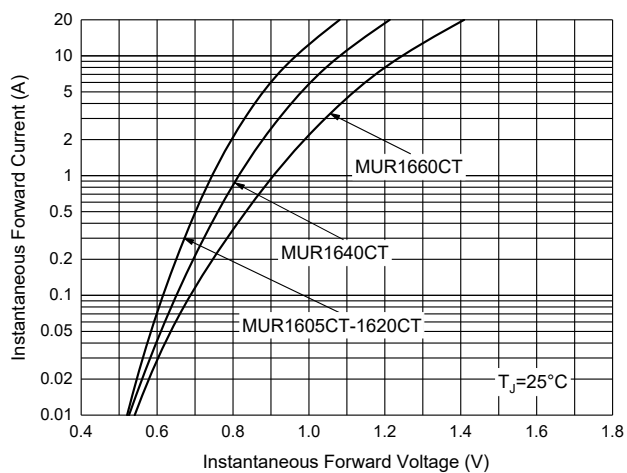
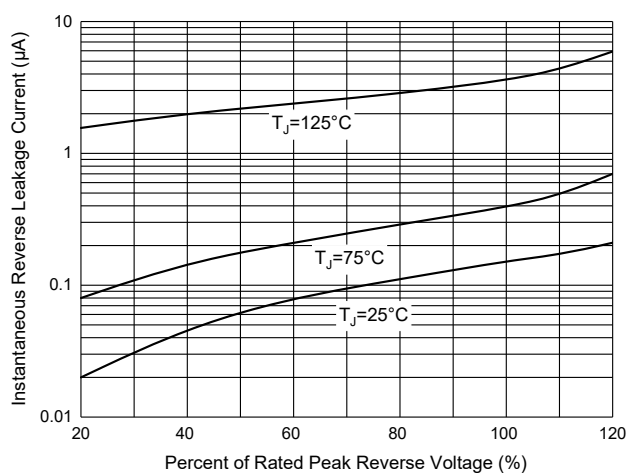
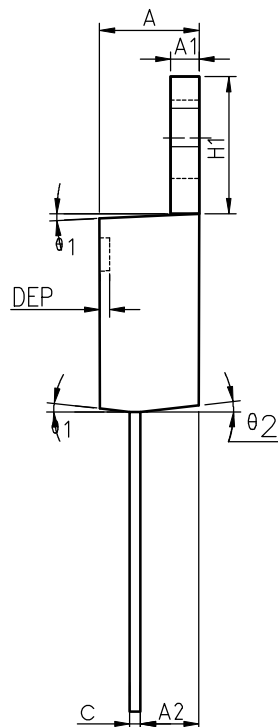
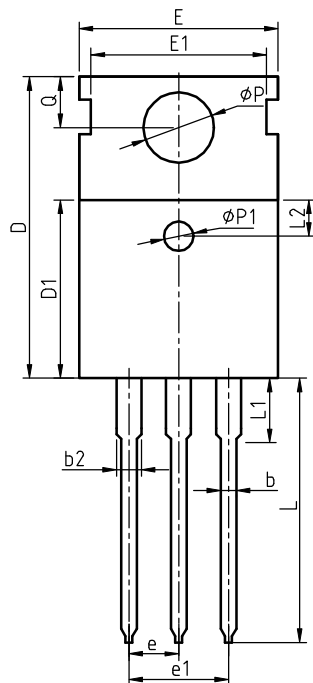


Fig. 4 - Typical Reverse Leakage Characteristics



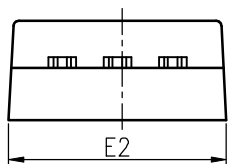


Package Information
TO-220C(TO-220AB)



COMMON DIMENSIONS

SYMBOL	MIN	NOM	MAX	MIN	NOM	MAX
A	4.40	4.57	4.70	0.173	0.180	0.185
A1	1.27	1.30	1.33	0.050	0.051	0.052
A2	2.35	2.40	2.50	0.093	0.094	0.098
b	0.77	0.80	0.90	0.030	0.031	0.035
b2	1.17	1.27	1.36	0.046	0.050	0.054
c	0.48	0.50	0.56	0.019	0.020	0.022
D	15.40	15.60	15.80	0.606	0.614	0.622
D1	9.00	9.10	9.20	0.354	0.358	0.362
DEP	0.05	0.10	0.20	0.002	0.004	0.008
E	9.80	10.00	10.20	0.386	0.394	0.402
E1	-	8.70	-	-	0.343	-
E2	9.80	10.00	10.20	0.386	0.394	0.402
e		2.54	BSC		0.100	BSC
e1		5.08	BSC		0.200	BSC
H1	6.40	6.50	6.60	0.252	0.256	0.260
L	12.75	13.50	13.65	0.502	0.531	0.537
L1	-	3.10	3.30	-	0.122	0.130
L2		2.50	REF		0.098	REF
P	3.50	3.60	3.63	0.138	0.142	0.143
P1	3.50	3.60	3.63	0.138	0.142	0.143
Q	2.73	2.80	2.87	0.107	0.110	0.113
θ 1	5°	7°	9°	5°	7°	9°
θ 2	1°	3°	5°	1°	3°	5°
θ 3	1°	3°	5°	1°	3°	5°





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