

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

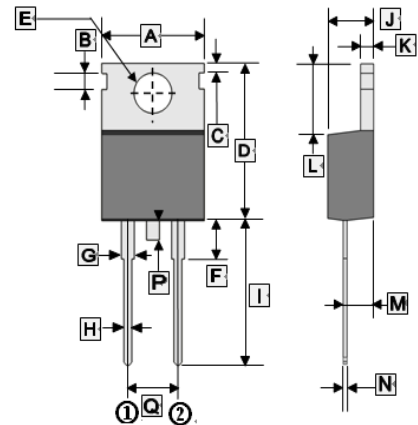
FEATURES

- Fast switching for high efficiency
- Low noise
- Low reverse leakage current
- High voltage super FRD
- PFC application

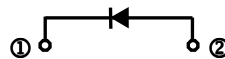
MECHANICAL DATA

- Case : Molded plastic TO-220YA
- Epoxy : UL 94V-0 rate flame retardant
- Terminals : Solderable per MIL-STD-202 method 208
- Mounting position : Any
- Weight : 2.07 grams

TO-220YA



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	-	10.5	I	12.90	13.35
B	1.58	1.82	J	4.44	4.70
C	1.33	1.45	K	1.14	1.40
D	15.3	16.2	L	5.84	6.86
E	3.50	3.91	M	2.25	2.60
F	2.90	3.25	N	0.35	0.64
G	1.22	1.43	P	-	1.7
H	0.68	0.94	Q	4.95	5.20



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Rating at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, de-rate current by 20%.)

Parameter	Symbol	Rating	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
Maximum Average Forward Rectified Current $T_C=140^\circ\text{C}$	$I_{F(AV)}$	15.0	A
Peak Forward Surge Current, 8.3ms single Half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	200	A
Instantaneous Forward Voltage	V_F	$T_J=25^\circ\text{C}$	3.2
		$T_J=150^\circ\text{C}$	2.8
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	$T_J=25^\circ\text{C}$	100
		$T_J=150^\circ\text{C}$	500
Maximum Reverse Recovery Time ¹	T_{RR}	45	nS
Maximum Reverse Recovery Time ²	T_{RR}	75	
Typical Junction Capacitance ³	C_J	-	pF
Typical Thermal Resistance ⁴	$R_{\theta JC}$	1.5	°C / W
Operating Junction and Storage Temperature Range	T_J, T_{STG}	175	°C

Notes :

1. Reverse recovery test conditions $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{RR}=0.25\text{A}$.
2. Reverse recovery test conditions $I_F=15\text{A}$, $dI_F/dt=100\text{A}/\mu\text{s}$.
3. Junction Capacitance test conditions : $V_R=10\text{V}$, $I_F=0$.
4. Thermal Resistance junction to case.

RATINGS AND CHARACTERISTICS CURVE

FIG.1 - FORWARD CURRENT DERATING CURVE

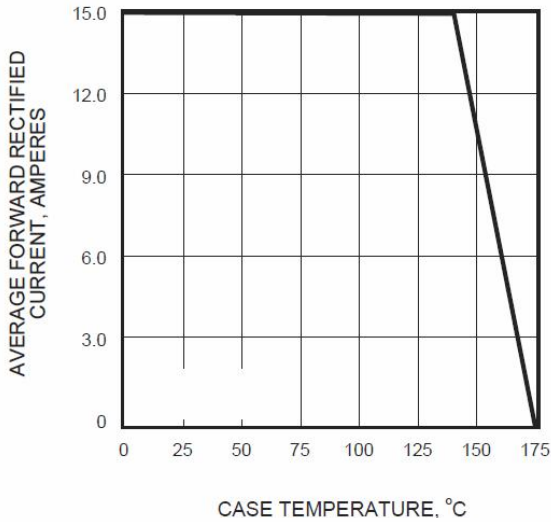


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

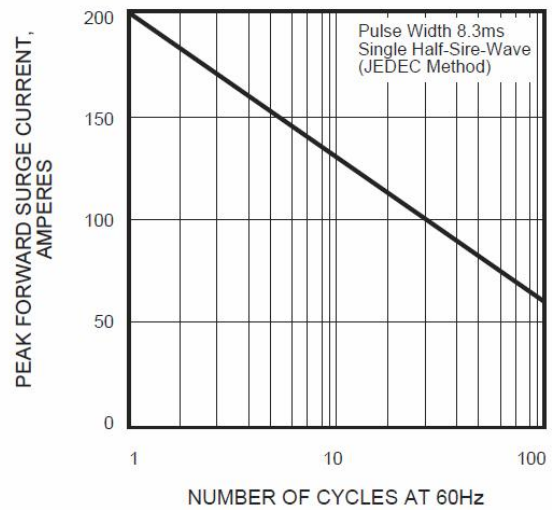


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

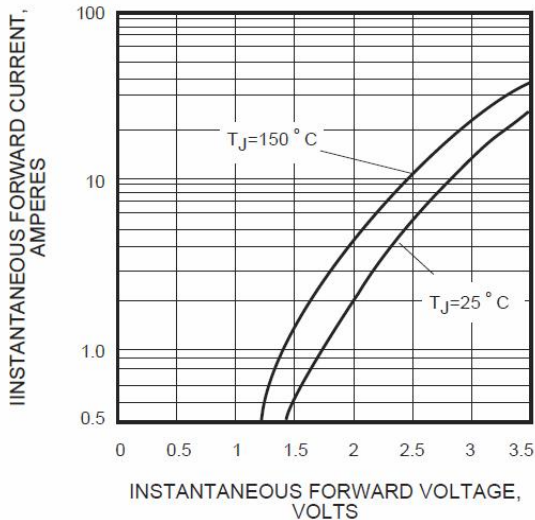


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

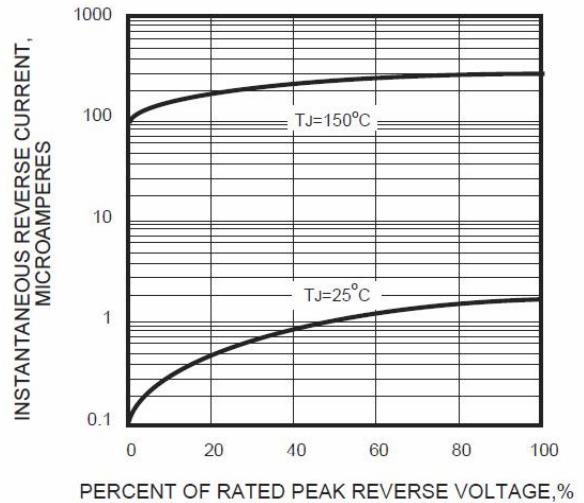


FIG.5 - T_{rr}, t_a AND t_b CURVES vs FORWARD CURRENT

