

10 Amp Epitaxial High Efficiency Rectifiers

300 To 600 Volt V_{RRM}

Low Thermal Resistance

Low Leakage

High Surge Capability

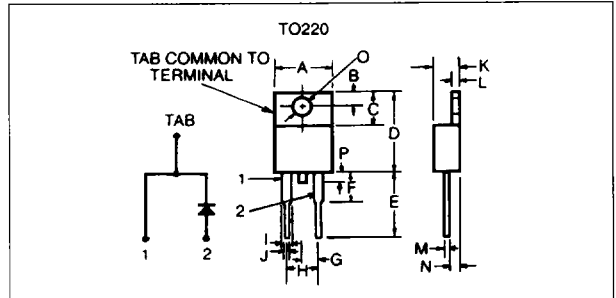
Ultra Fast Switching Speeds

Glass Passivated



LTR.	INCHES	MILLIMETERS
A	0.415 Max	10.54 Max
B	.108	2.74
C	.248	6.3
D	0.605 Max	15.37 Max
E	0.552	14.02
F	0.240 Max	6.1 Max
G	0.100	2.54
H	0.200	5.08
I	0.050	1.27
J	0.032	0.81
K	.190 Max	4.83 Max
L	0.050	1.27
M	0.022	0.56
N	0.105	2.67
O	0.143	3.63
P	0.130 Max	3.30 Max

Inch tolerances $\pm .005$



MAXIMUM RATINGS ($T_J = 25^\circ\text{C}$ unless otherwise noted)

RATINGS	SYMBOL	VHE1405	VHE1406	VHE1407	VHE1408	UNITS
DC Blocking Voltage	V_{RM}					
Working Peak Reverse Voltage	V_{RWM}	300	400	500	600	Volts
Peak Repetitive Reverse Voltage	V_{RRM}					
RMS Reverse Voltage	$V_{R(RMS)}$	210	280	350	420	Volts
Average Rectified Forward Current @ $T_C = 100^\circ\text{C}$	I_o	10.0				Amps
Peak Surge Current (non-rep), $\frac{1}{2}$ cycle, 60 Hz	I_{FSM}	150.0				Amps
Thermal Resistance, Junction to Case	$R_{\theta JC}$	2.25				$^\circ\text{C}/\text{Watt}$
Operating and Storage Temperature Range	T_J, T_{STG}	- 65 to + 150				$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS ($T_J = 25^\circ\text{C}$ unless otherwise noted)

CHARACTERISTICS	SYMBOL	VHE1405	VHE1406	VHE1407	VHE1408	UNITS
Maximum Instantaneous Forward Voltage Drop	V_{FM}	$T_J = 25^\circ\text{C}$		$T_J = 100^\circ\text{C}$		Volts
$I_F = 5\text{A}$		1.40		1.15		
$I_F = 10\text{A}$		1.65		1.40		
$I_F = 20\text{A}$		1.95		1.75		
Maximum Reverse Current at Rated V_{RM} $T_J = 25^\circ\text{C}$ $T_J = 100^\circ\text{C}$ $T_J = 150^\circ\text{C}$	I_{RM}			10.0 200.0 500.0		μAmps
Maximum Reverse Recovery Time $I_F = 0.5\text{A}, I_R = 1\text{A},$ $t_{RR} = 0.25\text{A}$	t_{rr}			50		nsec.
Typical Junction Capacitance Voltage, $V_R = 10\text{V}$.	C_J			35		pF

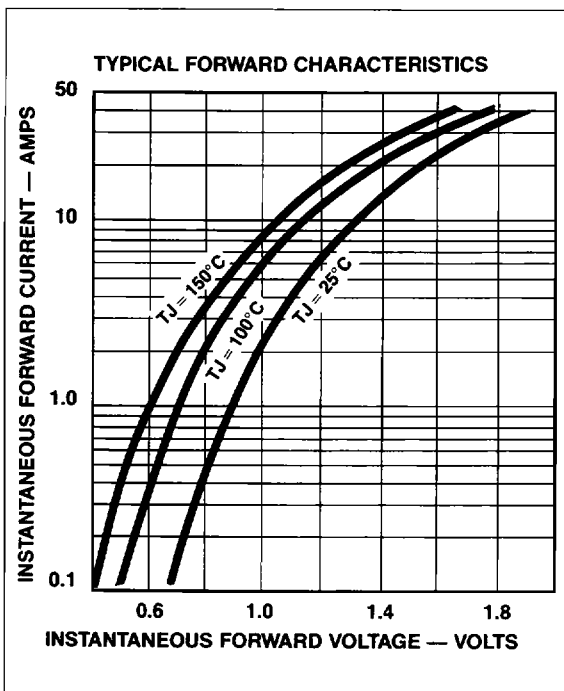


FIGURE 1

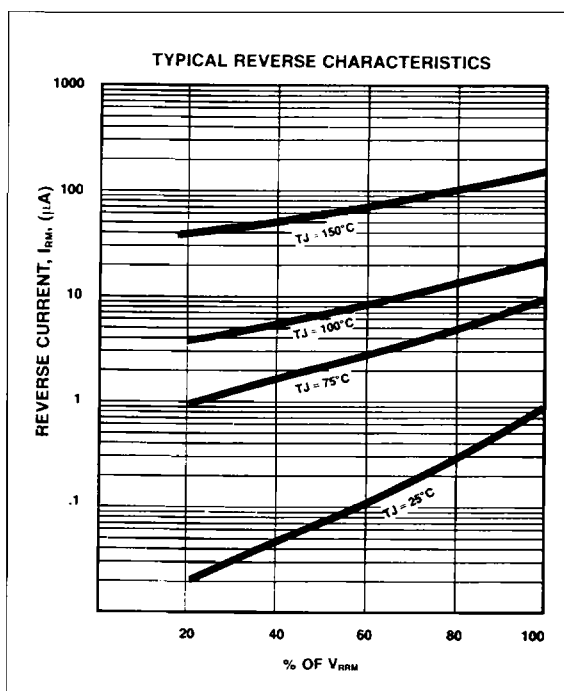


FIGURE 2

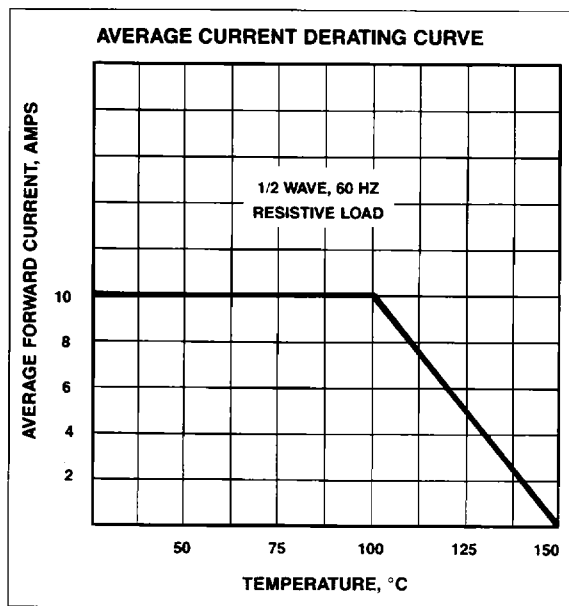


FIGURE 3

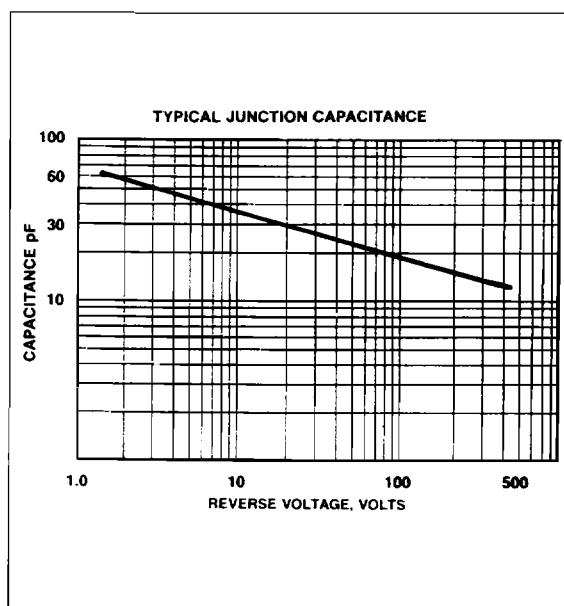


FIGURE 4