

T-03-17



## 5 Amp Epitaxial High Efficiency Rectifiers

300 To 600 Volt  $V_{RRM}$

Low Leakage

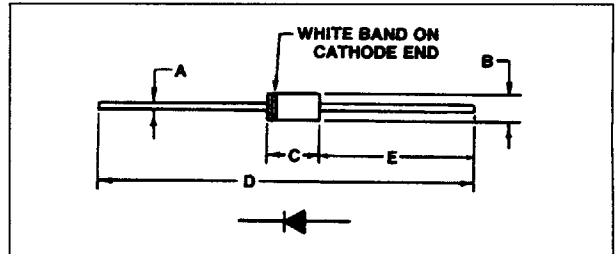
High Surge Capability

Ultra Fast Switching Speeds

Glass Passivated

LTR.	INCHES	MILLIMETERS
A	.048-.052 Dia.	1.22-1.32 Dia.
B	.20 Dia.	5.08 Dia.
C	.38	9.65
D	2.64-2.78	67.06-70.61
E	1.137-1.237	28.33-31.42

Dimensional Tolerance inches .XX<sup>+ .02</sup>, .XXX<sup>+ .005</sup>.



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

RATINGS	SYMBOL	VHE530	VHE540	VHE550	VHE560	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	$V_{RRMS}$	210	280	350	420	Volts
Average Rectified Forward Current @ $T_J = 75^\circ\text{C}$ , $L = .375"$	$I_o$	5.0				Amps
Peak Surge Current (non-rep), 1/2 cycle, 60 Hz	$I_{FSM}$	150.0				Amps
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	VHE530	VHE540	VHE550	VHE560	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 $V_{RM}$	$I_{RM}$	$T_J = 25^\circ\text{C}$		$T_J = 100^\circ\text{C}$		$\mu\text{Amps}$
$T_J = 25^\circ\text{C}$				10.0		
$T_J = 100^\circ\text{C}$				200.0		
$T_J = 150^\circ\text{C}$				500.0		
Maximum Reverse Recovery Time	$t_{rr}$	$I_F = 0.5\text{A}, I_R = 1\text{A}, I_{RR} = 0.25\text{A}$		50		nsec.
Typical Junction Capacitance, $V_R = 10\text{V}$		$C_J$		35		

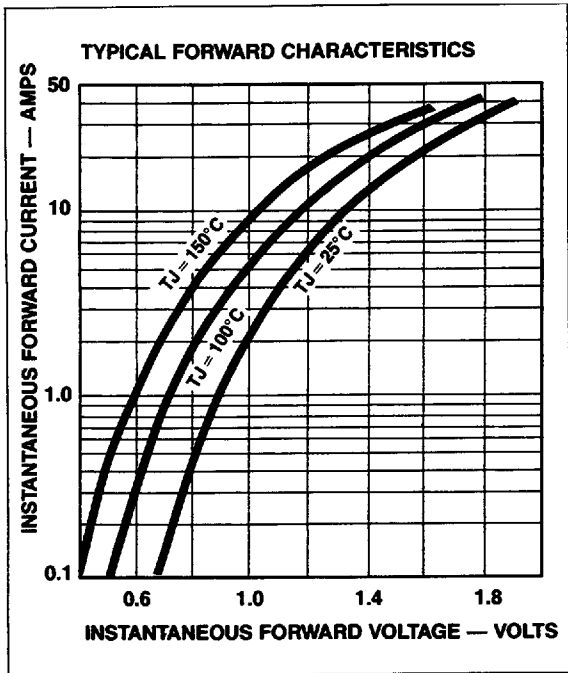


FIGURE 1

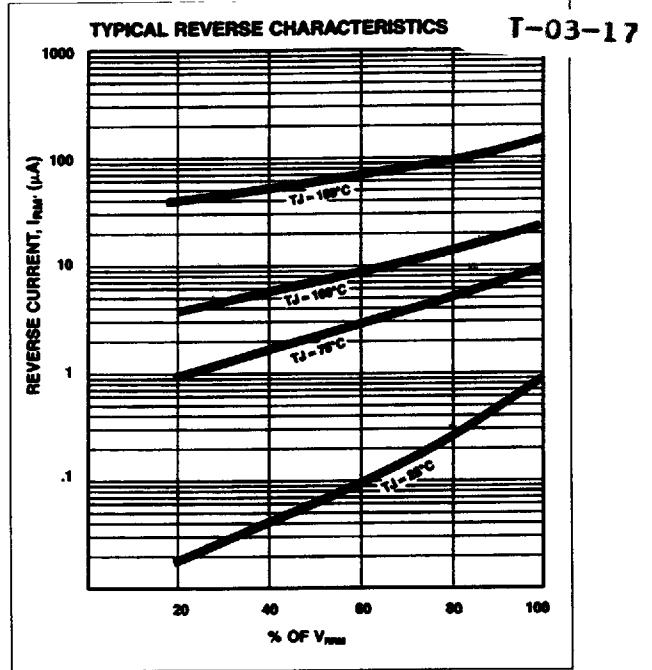


FIGURE 2

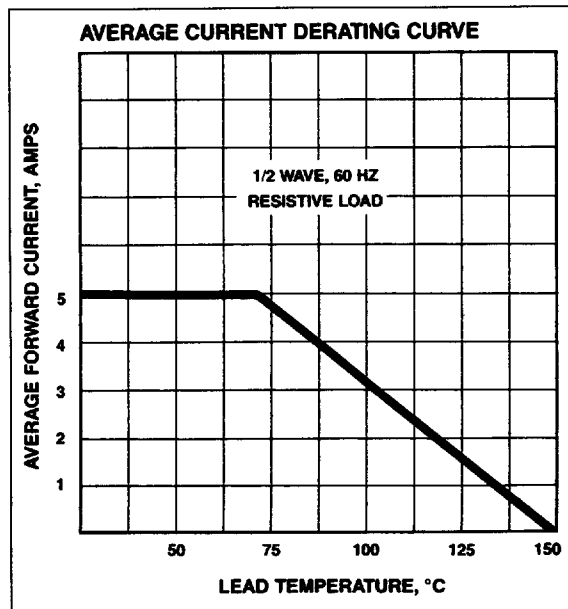


FIGURE 3

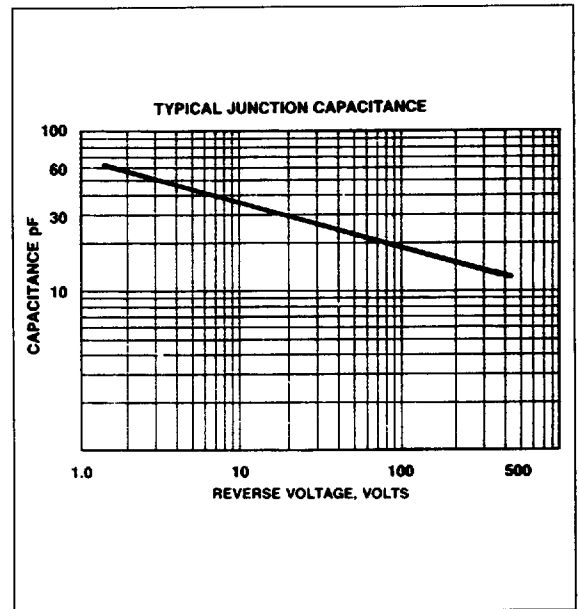


FIGURE 4