

## Low Voltage Option

### AVAILABLE FOR:

- Cast packages (TSOP312..., TSOP313..., TSOP314...)
- Minicast packages (TSOP38...)
- Molded packages (TSOP32..., TSOP34...)
- Standard SMD packages (TSOP36...)
- Heimdall packages (TSOP75...)
- Belobog packages (TSOP37..., TSOP37...H)
- Minimold packages (TSOP33...)
- TVCast(SMD) packages (TSOP39..., TSOP39...TR1)

### FEATURES

- Low supply voltage: 2 V to 5.5 V
- Material categorization: for definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)

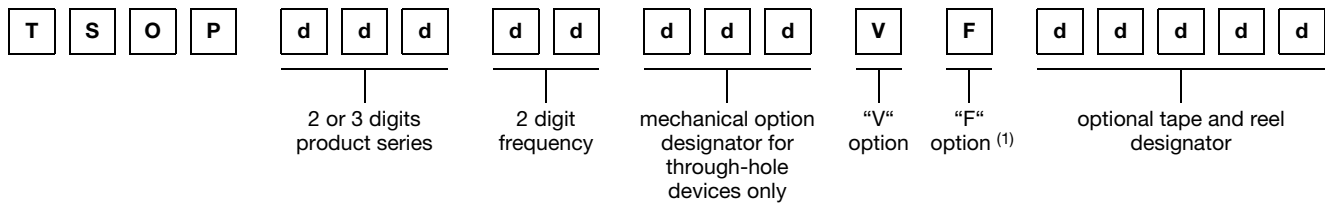


RoHS  
COMPLIANT  
HALOGEN  
**FREE**  
**GREEN**  
(5-2008)

### DESCRIPTION

The “V” series are special IR receivers capable of operating at very low voltages. The power supply operating range is 2 V to 5.5 V over a temperature range of +5 °C to +85 °C.

### ORDERING INFORMATION



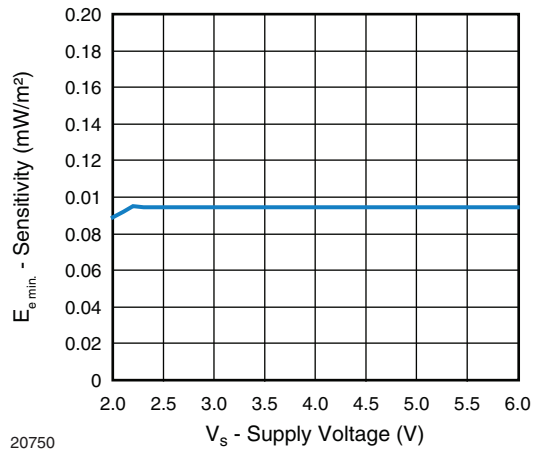
#### Notes

- d = “digit”, please consult the list of available series to create a valid part number.
- (1) As second option possible; see F option datasheet

- Example:**
- TSOP34838SS1V - V version, molded package**
  - TSOP38240SS1V - V version, minicast package**
  - TSOP38240SS1VBS12 - V version, minicast package, tape and reel**
  - TSOP31238SS1V - V version, cast package**
  - TSOP31238XG1V - V version, cast package, with holder**
  - TSOP36240VTT - V version, standard SMD package**
  - TSOP75240VTR - V version, Heimdall package**
  - TSOP32338SS1VF - V and F version molded package**
  - TSOP33438SS1V - V version, minimold package**

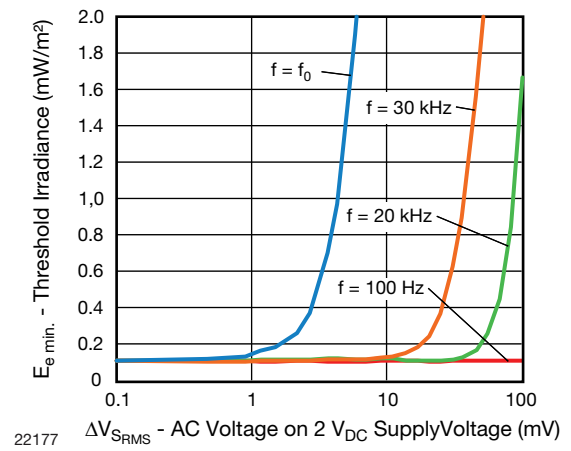
ELECTRICAL AND OPTICAL CHARACTERISTICS						
PARAMETER	TEST CONDITION	SYMBOL	MIN.	TYP.	MAX.	UNIT
Supply voltage	-25 °C to +85 °C	$V_S$	2.5	-	5.5	V
	+5 °C to +85 °C	$V_S$	2	-	5.5	V

**TYPICAL CHARACTERISTICS**



20750

Fig. 1 - Sensitivity vs. Supply Voltage



22177

Fig. 2 - Threshold Irradiance vs. AC Voltage on 2 V<sub>DC</sub> Supply Voltage