

O-E convertor IP-Si 3212Y

Characteristics

- High sensitivity, Low noise
- Large gain, Fast response
- large current transmission ratio
- High reliability



Applications:

- 0.6328 μ m light receiver, Opto-electronic
- conveIPion instrument

Mechanism

The device is a Darlington transistor, when light strikes upon the sensitive area, a pair of electron and hole will appear, the carrier go to collector by the reveI Pe bias, and are amplified, in another words, the optical current, the current can be read in circuit.

Technical Parameter(TA=23°C)

Parameter	Symbol	Test Conditions	Typical	Unit
Wavelength	λ		0.6328	μ m
Single channel current	I_D	$V_{ce}=10V, R_b=1M\Omega$	200	nA
Open collector-base breakage voltage	V_{CBO}	$I_C=10\mu A$	70	V
Open collector-emitter breakage voltage	V_{CEO}	$I_C=10\mu A, R_b=1M\Omega$	50	V
Collector reverse current	I_{CBO}	$V_{CB}=10V$	0.1	μ A
Static current transmission ratio	h_{FE}	$V_{ce}=5V, I_E=1.5mA$	1500	
Emitter transition capacitance	C_{EB}	$V_{EB}=0.1V, f=1MHz$	2.5	pF
Collector transition capacitance	C_{CB}	$V_{CB}=10V, f=1MHz$	6	pF
High frequency current transmission coefficient modulus	$ h_{fe} $	$V_{ce}=5V, I_e=1.5mA, f=400MHz$	≥ 1	

Typical Operating Characteristics

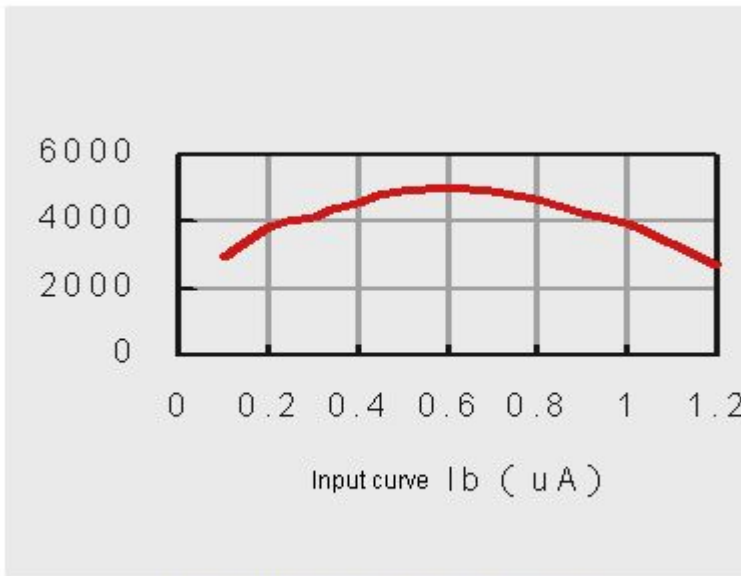


Fig. 1 Static gain VS. input current curve

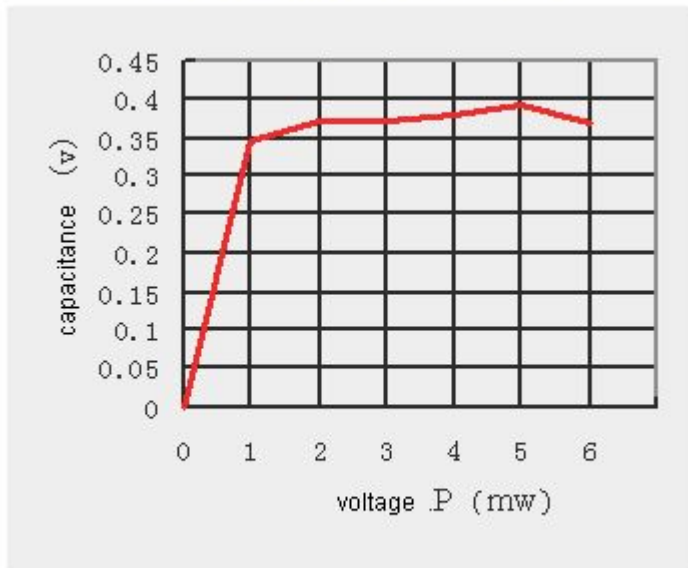
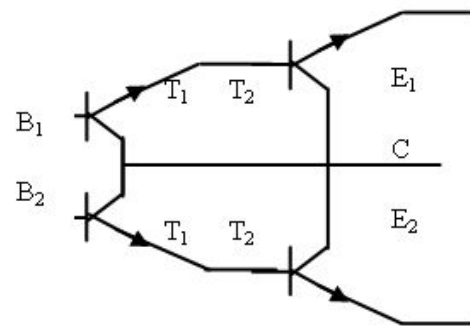
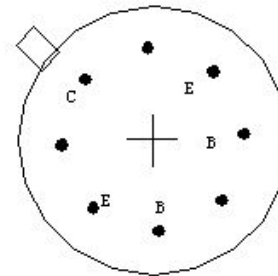
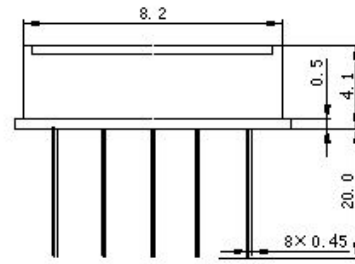


Fig. 2 C-V curve

Package and usage



Note:

- Device works at zero bias condition
- Avoid violent shock when device is operating
- Correct Lead connection and Limited Current Supply.