

INCHANGE SEMICONDUCTOR

isc Silicon PNP Power Transistors

MJD45H11

DESCRIPTION

- Low Collector-Emitter Saturation Voltage
- : V_{CE(sat})= 1.0V(Max)@ I_C = 8A
- Fast Switching Speeds
- Complement to Type MJD44H11
- DPAK for Surface Mount Applications
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

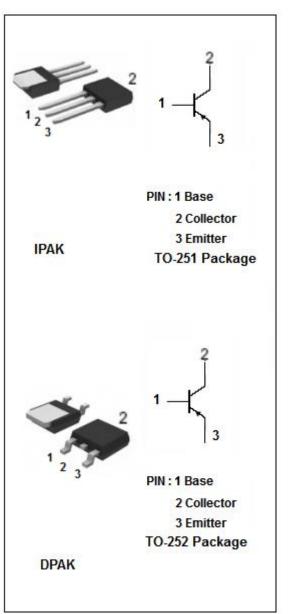
 Designed for general pourpose power amplification and switching such as output or driver stages in applications such as switching regulators, converters and power amplifier.

SYMBOL	PARAMETER	VALUE	UNIT		
V _{CEO}	Collector-Emitter Voltage	-80	V		
V _{EBO}	Emitter-Base Voltage	-5	V		
lc	Collector Current-Continuous	-8	А		
I _{См}	Collector Current-Peak	-16	А		
Pc	Collector Power Dissipation @Tc=25°C	20	W		
	Collector Power Dissipation @T _a =25℃	1.75			
Tj	Junction Temperature	150	°C		
T _{stg}	Storage Temperature Range		°C		

ABSOLUTE MAXIMUM RATINGS(Ta=25℃)

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	МАХ	UNIT
R _{th j-c}	Thermal Resistance, Junction to Case	6.25	°C/W
R _{th j-a}	Thermal Resistance, Junction to Ambient	71.4	°C/W



isc website: www.iscsemi.com



isc Silicon PNP Power Transistors

MJD45H11

ELECTRICAL CHARACTERISTICS

SYMBOL	PARAMETER	CONDITIONS	MIN	ТҮР	МАХ	UNIT
VCEO(SUS)	Collector-Emitter Sustaining Voltage	I _C = -30mA; I _B = 0	-80		V	
V _{CE(sat)}	Collector-EmitterSaturation Voltage	I _C = -8A ;I _B = -0.4 A			-1.0	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = -8A ;I _B = -0.8 A			-1.5	V
I _{CES}	Collector Cutoff Current	V_{CE} =Rated V_{CEO} ; V_{BE} = 0			-1.0	μA
I _{EBO}	Emitter Cutoff Current	V _{EB} = -5V; I _C = 0			-1.0	μA
h _{FE-1}	DC Current Gain	Ic= -2A ; Vce= -1V	60			
h _{FE-2}	DC Current Gain	I _C = -4A ; V _{CE} = -1V	40			
Сов	Output Capacitance	V _{CB} = -10V,f= 1.0MHz		130		pF
f⊤	Current-Gain—Bandwidth Product	I _C =-0.5A;V _{CE} =-10V;f _{test} =20MHz		40		MHz

Switching Times; Resistive Load

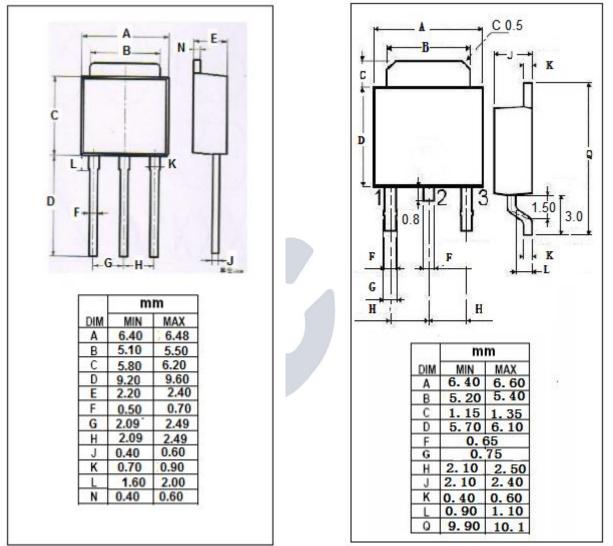
td+tr	Delay and Rise Time		135	ns
ts	Storage Time	I _C = -5A; I _{B1} = I _{B2} = -0.5A	500	ns
t _f	Fall Time		100	ns



isc Silicon PNP Power Transistors

MJD45H11

Outline Drawing



Notice:

ISC reserves the rights to make changes of the content herein the datasheet at any time without notification. The information contained herein is presented only as a guide for the applications of our products.

ISC products are intended for usage in general electronic equipment. The products are not designed for use in equipment which require specialized quality and/or reliability, or in equipment

which could have applications in hazardous environments, aerospace industry, or medical field. Please contact us if you intend our products to be used in these special applications. ISC makes no warranty or guarantee regarding the suitability of its products for any particular purpose, nor does ISC assume any liability arising from the application or use of any products, and specifically disclaims any and all liability, including without limitation special, consequential or incidental damages.

isc website: www.iscsemi.com

10.11